CONGRESS PROGRAM

The XIV Congress of the International Association for Engineering Geology and the Environment

第14届国际工程地质与环境大会

Chengdu, China | Sept. 21-27, 2023

Engineering Geology for a Habitable Earth

工 / 程 / 地 / 质 与 宜 / 居 / 地 / 球

Table of Contents

XIV IAEG Congress 2023

The XIV Congress of the International Association for Engineering Geology and the Environment
September 21-27, 2023 | Chengdu, China

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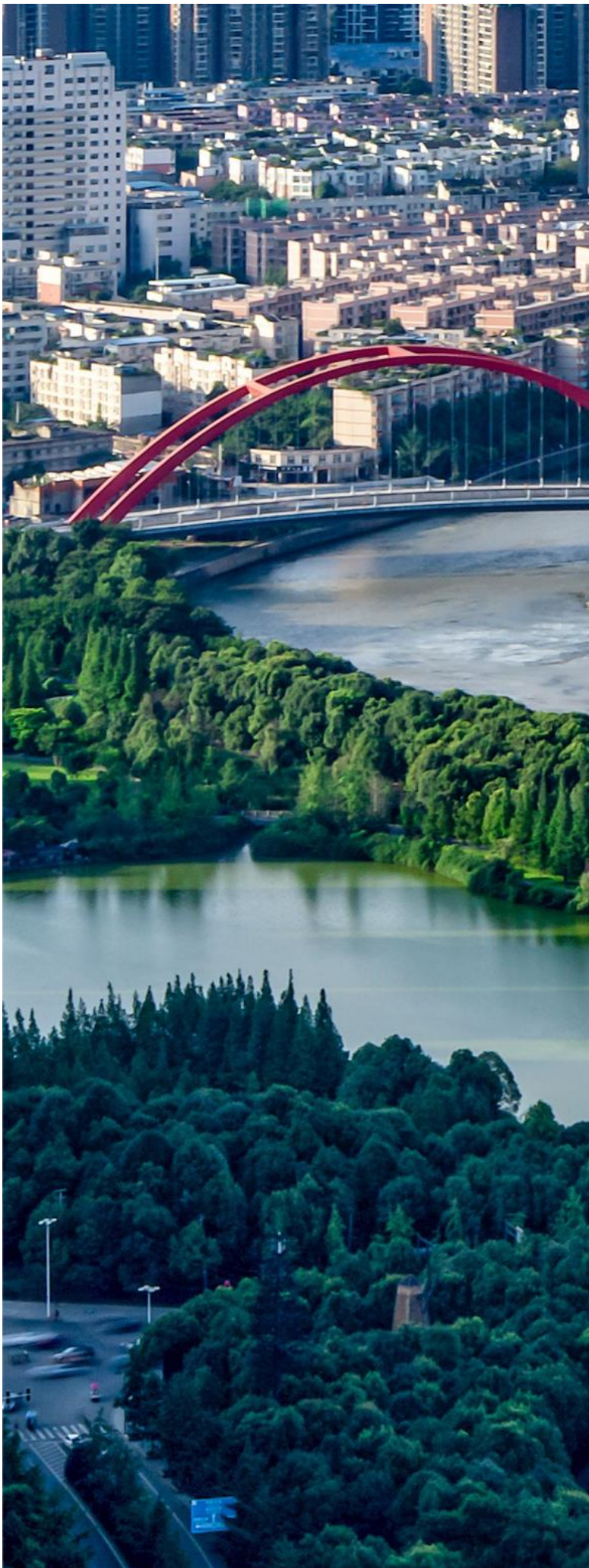


Welcome Message

Qiang Xu
Organizing Chair of
IAEG 2023 Congress

Welcome to IAEG 2023

We are truly honored and delighted that the IAEG has selected Chengdu for this momentous event. This marks a significant milestone as the IAEG Congress comes to China for the first time. We sincerely hope that your experience here will be both enriching and enjoyable.

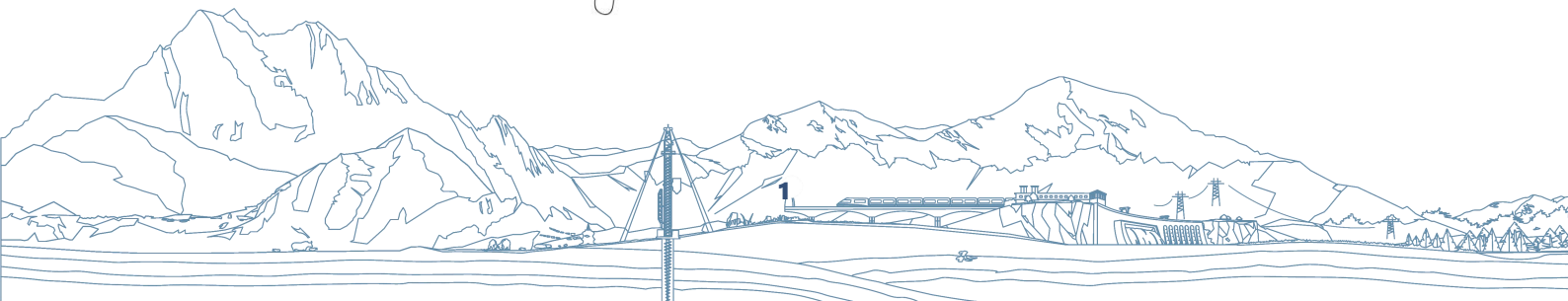
Chengdu is a historical and cultural city with a history of over 3000 years. Since ancient times, Chengdu has been known as the 'Land of Abundance,' owing to its fertile soil, favorable climate, and its environmentally sustainable Dujiangyan Irrigation System. This world's oldest no-dam irrigation project is still in use today, reflecting a profound connection between engineering and livability.

Over 1200 years ago, the great Chinese poet Du Fu moved to Chengdu and wrote the well-known piece ***'My window frames the snow-crowned western mountain scene',*** which linked this city to its surrounding mountains. Nowadays, the mountainous regions extending from the Qinghai-Tibet Plateau to the east of Chengdu have become a hotspot worldwide due to their active geological structure, unique geographical features, and the frequent occurrences of earthquakes, landslides, and mudslides. Meanwhile, as a rapidly developing large city, engineering geology plays a vital role in Chengdu and its surrounding areas. Numerous projects such as large-scale roads, railways, tunnels, dams, and bridges have continually challenged the skills of engineering geologists, demonstrating the close relationship between Chengdu and engineering geology.

Chengdu also offers wonderful food and beautiful scenery. Well-known throughout history as a foodie city, Chengdu is the birthplace of culinary traditions and dishes including Hotpot, Mapo Tofu, Kung Pao Chicken, and Dandan noodles. After a satisfying meal, I strongly encourage you to experience the tour of the Chengdu Research Base of Giant Panda Breeding and the Chengdu Natural History Museum. Never miss the giant pandas and the giant dinosaurs.

IAEG 2023 in Chengdu presents a unique opportunity to explore China's distinctive culture and geological wonders. We eagerly welcome you to our charming city of Chengdu.

Warm regards,
Qiang Xu
Organizing Chair of IAEG 2023 Congress



Welcome Message from President of IAEG

Vassilis P. Marinos
President of IAEG

It is my great pleasure as the President of International Association for Engineering Geology and the Environment (IAEG) to welcome you to the beautiful city of Chengdu in Sichuan Province, China. We are honored and delighted that IAEG has chosen Chengdu as the city for the World Congress that is organized every 4 years.

IAEG has always been very active in promoting engineering geology and its international importance to the public in order to improve human safety and quality of life through geohazards and risk mitigation, infrastructure development and environmental protection. All Past Presidents have contributed towards this same goal.

A vision, a mission, goals and actions for the modernisation of IAEG were discussed and decided in the last Executive Committee meetings. Our strategy will follow certain goals:

- Maximize the integration of Geology to Engineering. We have succeeded in many fields in the latest decades in 'putting numbers in geology' and ground investigation techniques. The technological advances are a powerful tool in our hands. However, we have to revisit our Engineering Geology core values and to ensure that there is a good understanding and knowledge of geological processes. We need to provide guidance and promotion for developing geological models and mechanisms.
- Grow IAEG with new National/Regional Groups but also young members that will shape the future of our Association. Improve membership service, communication and increase the involvement of our members within the association.
- Establish good networking between experienced professionals and young geoengineers, at regional and international levels towards i) professional development, ii) scientific advancement and iii) education and training.
- Promote and establish, under the IAEG umbrella, new fields in Engineering Geology, especially in the geohazard, environmental and climate change topics.
- Enhance the future of the IAEG through improved gender equity in engineering geology and increasing involvement and inclusion of women in the activities and opportunities of the Association.

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Welcome Message from President of IAEG

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Sichuan Province is known for its rich history, vibrant culture, and diverse landscapes. It is also one of the most seismically active areas in the world, making it an ideal location for scientific discussions on engineering geology and natural hazards. Sichuan has experienced devastating earthquakes in the past, and it is crucial that we continue to explore innovative solutions to ensure the resilience of our communities and economies in the face of these challenges.

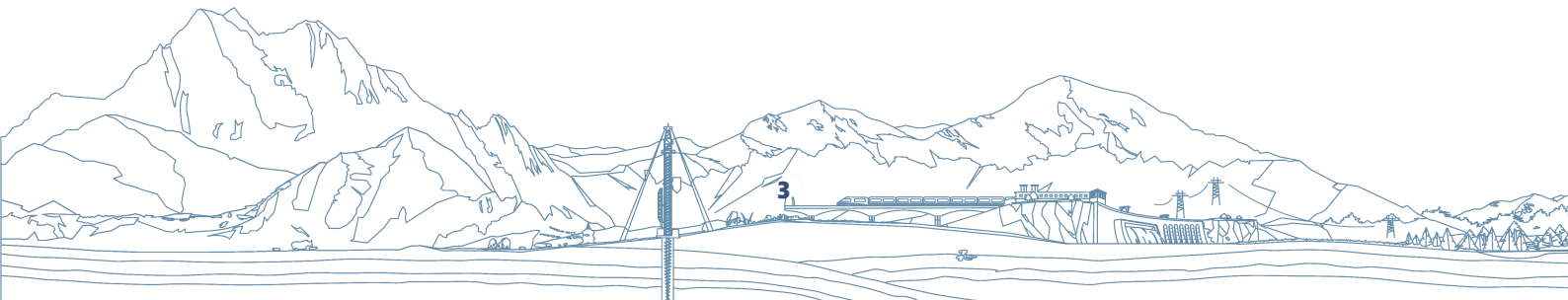
Chengdu, the capital city of Sichuan Province, has a population of over 16 million and is a major economic center in western China. It is home to many high-tech industries, including artificial intelligence, biomedicine, and new energy. Chengdu is also famous for its delicious cuisine, as well as its rich cultural heritage, including the Giant Panda sanctuaries and the ancient Dujiangyan Irrigation System.

As we gather here in Chengdu for the XIV IAEG Congress, we must acknowledge the geological significance of this region. Sichuan Province has a long history of geological exploration and research, dating back to the Qing Dynasty. The province is also home to many world-renowned geological sites, including Jiuzhaigou Valley and Mount Emei.

We hope that you find your stay here to be socially exciting and professionally fulfilling. We encourage you to explore the scenic beauty of Sichuan Province, from its majestic mountains to its fertile valleys. We also hope that you will take this opportunity to engage in fruitful discussions, share valuable insights, and establish lasting collaborations.

Once again, I extend my warmest welcome to each and every one of you. May this congress be a platform for advancing our understanding of engineering geology and environment, and for strengthening our bonds as members of the global engineering geological community via our International Association.

Kind regards,
Vassilis P. Marinos
President of IAEG



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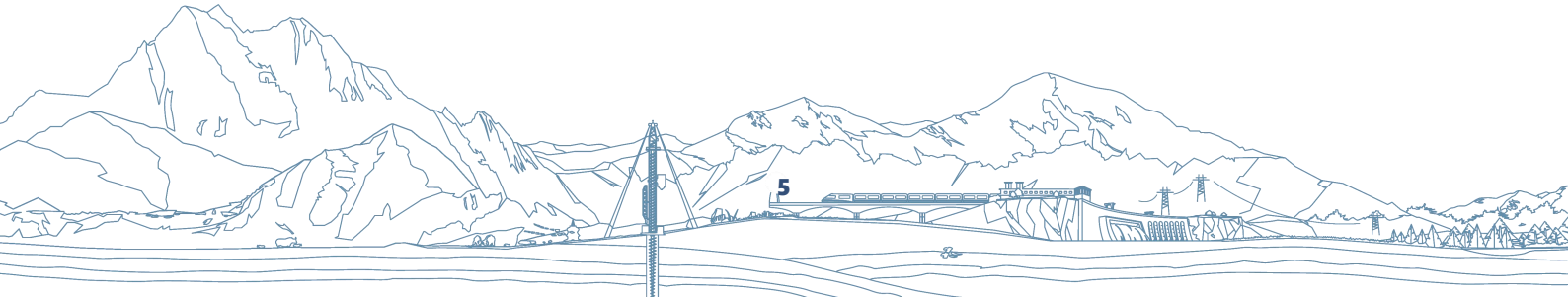

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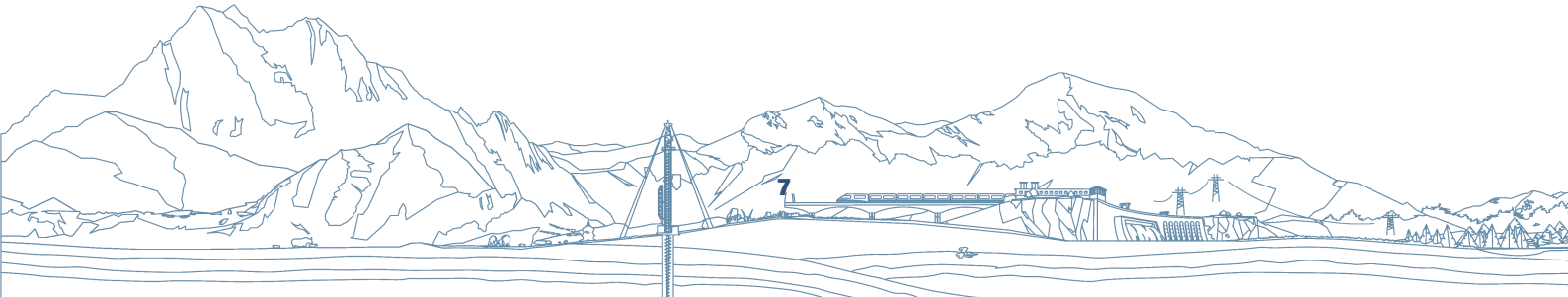

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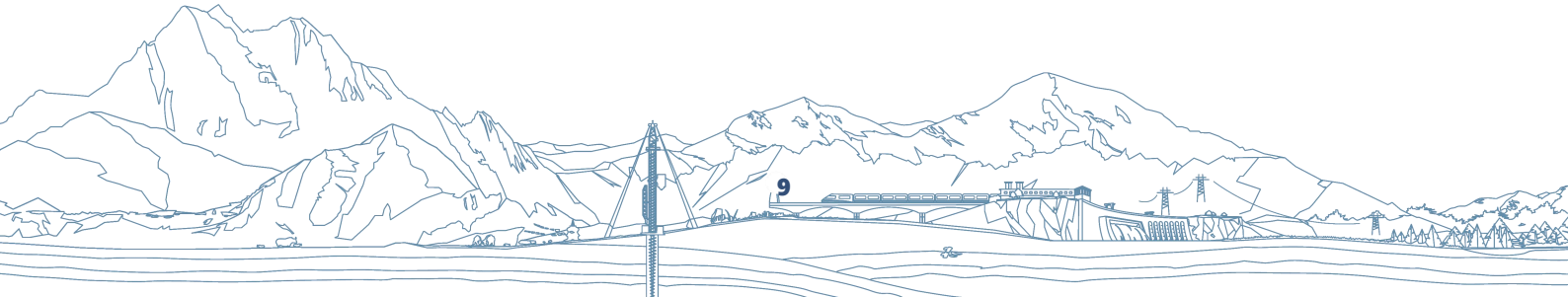

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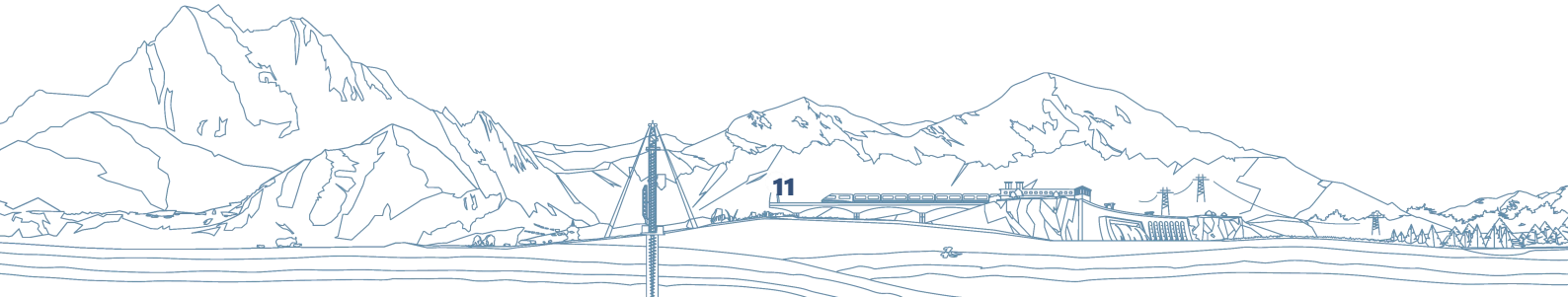
Chaojun Ouyang

Institute of Mountain Hazards and Environment, Chinese Academy of Sciences, China

Chun Liu

Nanjing University, China

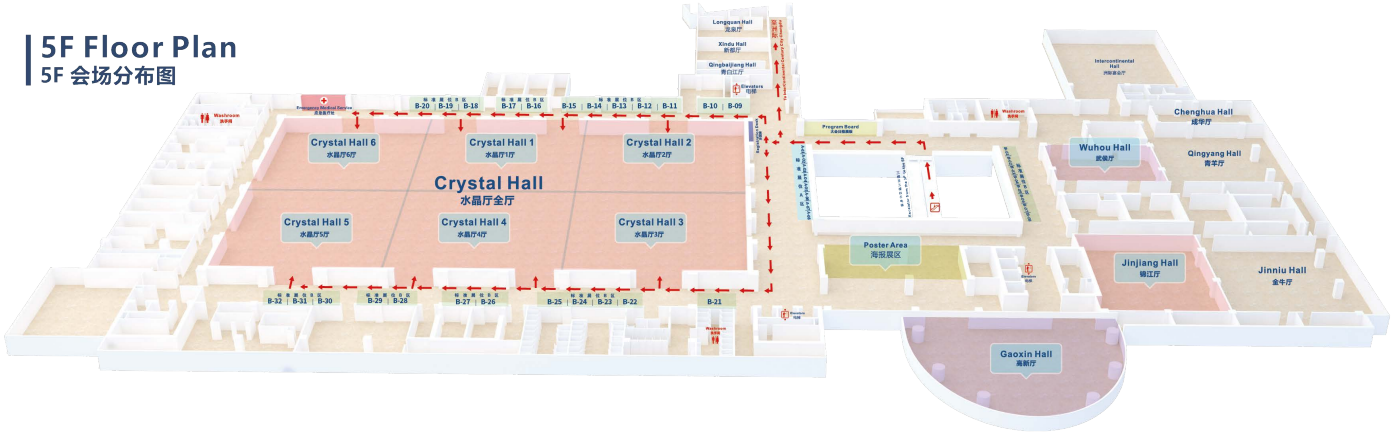


Congress Venue

Century City International Convention Centre

Address: 198 Shijicheng Road, Gaoxing District, Chengdu, China

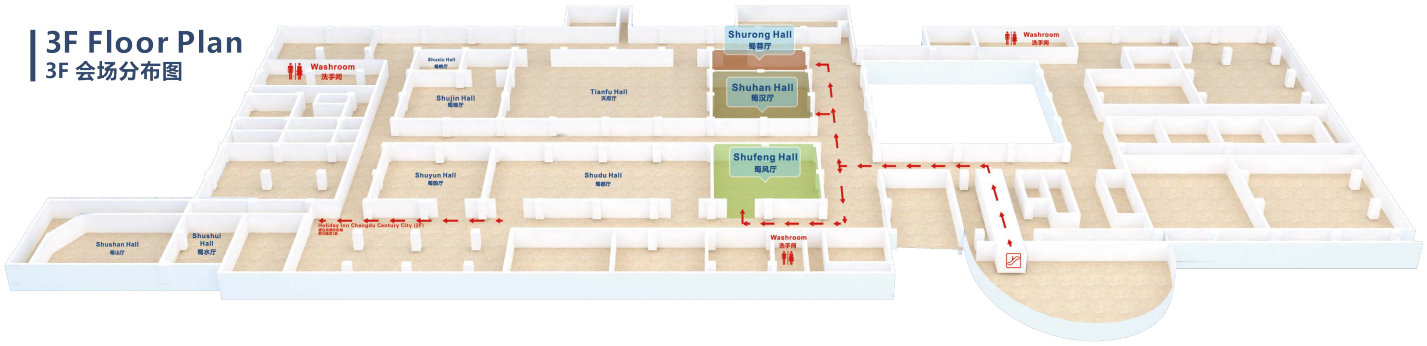
5F Floor Plan
5F 会场分布图



Crystal Hall 水晶厅 | Wuhou Hall 武侯厅 | Gaoxin Hall 高新厅 | Jinjiang Hall 锦江厅 | Path Direction 路径方向

Exhibition Area-A 展位A区 | Exhibition Area-B 展位B区 | Program Board 日程展板 | Registration Desk 签到处 | Poster Area 海报展区 | Emergency Medical Service 应急医疗处

3F Floor Plan
3F 会场分布图



Shufeng Hall 蜀风厅 | Shuhan Hall 蜀汉厅 | Shurong Hall 蜀蓉厅 | Path Direction 路径方向

Transportation

ARRIVING BY TRAIN

East Railway Station: Take Metro Line 7, East Railway Station to South Railway Station via 6 stops, transfer to Metro Line 1 via 3 stops to Century City, and walk 1069 meters to the terminal point. It is about 35 minutes by car and about CNY 40 if you take a taxi (for reference only).

South Railway Station: Take Metro Line 1 (Shengxianhu-Guangdu), South Railway Station boarding way 5 stops to Century City, walk 1069 meters to the terminal point. It is about 10 minutes by car, CNY 20 for taxi (for reference only).

FLYING TO CHENGDU

Chengdu Shuangliu International Airport: Take Airport Line 4 (Shuangliu International Airport Terminal T2 - Huayang Passenger Station) to Metro Century City Station and walk 830 meters to the terminal. It is about 30 minutes driving time and about CNY 50 by taxi (for reference only).

Chengdu Tianfu International Airport: Take Metro Line 18 and get on at Tianfu International Airport 1 and 2 terminal Station 5 stops to Century City Station. About 50 minutes driving time and about CNY 150 by taxi (for reference only).

General Information

CONGRESS REGISTRATION

Sept. 21, 2023 | 08:30-20:00

- Lobby of Holiday Inn Chengdu Century City (west)
- Inter Continental Century City Chengdu

Sept. 22, 2023 | 08:00-20:00

- Lobby of Holiday Inn Chengdu Century City (west)
- Inter Continental Century City Chengdu
- 5F of Chengdu International Exhibition Centre

Sept. 23-25, 2023 | 08:00-18:00

- Lobby of Holiday Inn Chengdu Century City (west)
- 5F of Chengdu International Exhibition Centre

EMERGENCY MEDICAL SERVICE

Sept. 22-25, 2023 | 08:30-18:00

- 5F of Chengdu International Exhibition Centre

WIFI

Name: IHG ONE REWARDS Free WI-FI
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CONGRESS UPDATE

The Congress Digital Guidebook provides all updated information about IAEG Congress 2023.

Congress Digital Guidebook

LIVE STREAMING

The live streaming of opening ceremony and keynote speech begins at 08:30-17:20, Sept. 22, 2023.

Online Live Streaming

FOLLOW US

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Technical Session Index

Theme 1: Engineering Geomechanics of Rock and Soil Masses

T01S01 Ground Property Characterization from In-Situ Tests

T01S02 Structure of Soil and Rock Mass

T01S03 Engineering Geology and Environment of Redbeds

T01S04 Rock Mass Engineering Geomechanics

T01S05 Interface Engineering Geomechanics

T01S06 Behavior and Treatment of Special Soil and Soft Rock

T01S07 Multiphase Flow and Geomechanics in CO_2 Geological Sequestration

T01S08 Unsaturated Soil Mechanics

Theme 2: Climate Change and Sustainable Development

T02S01 Extreme Climate, Soil and Water Conservation, and Sustainable Development in Semiarid Regions (Combined by T02S01/T02S06)

T02S02 Cryospheric Changes and Sustainable Development (Combined by T02S02/T02S03/T02S04)

T02S05 Impact of Climate and Environmental Change on Engineering (Combined by T02S05)

Theme 3: Megacity Engineering Geology

T03S01 Development and Utilization of Urban Underground Space and Adverse Geology (Combined by T03S01/T03S03/ T03S07)

T03S02 Megacity Geotechnical Engineering under Complicated Geological Conditions (Combined by T03S08/T03S09)

T03S03 Recent Advances in Megacity Engineering Geology (Combined by T03S03/T03S05/T03S06/T03S07)

T03S04 Seismic characterization, Design and Analysis of Urban Underground Space (Combined by T03S04/T03S06)

Theme 4: Geoenvironmental Engineering and Ecological Solutions

T04S01 Biological and Ecological Geoenvironmental Engineering (Combined by T04S03/T04S04/T04S08/T04S09)

T04S02 Sustainable Remediation of Contaminated Sites (Combined by T04S02/T04S05/T04S06/T04S07)

T04S03 NbS (Nature-based Solution) for Environmental Protection and Ecological Restoration (Combined by T04S01/T04S07)

T04S04 Expansive Soil/Clay and Its Environmental Effects (Combined by T04S10/T04S12)

T04S05 Solid Waste Landfills and Relevant Environmental Geotechnics (Combined by T04S11)

Theme 5: Active Tectonics, Geomorphology, and Geological Hazards

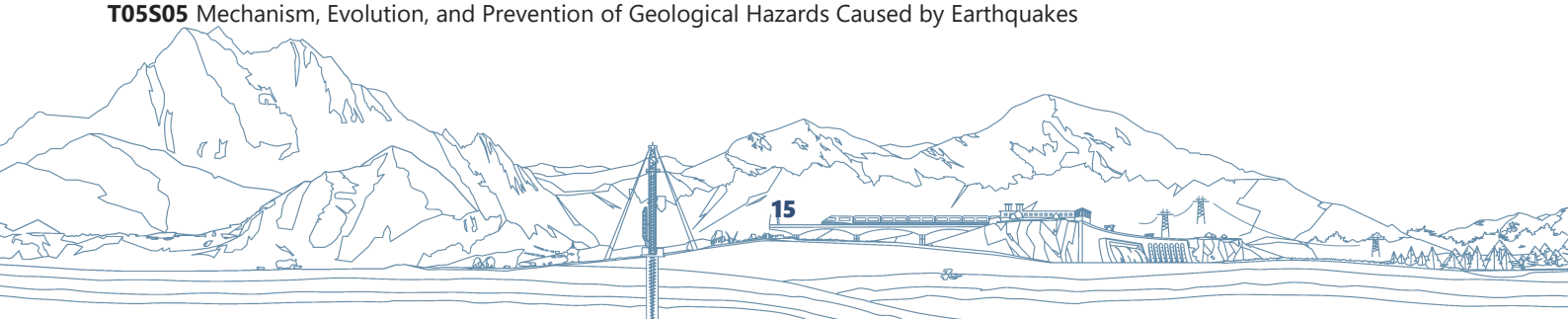
T05S01 Rockslide/Rock Avalanches: Geomorphology, Sedimentology, and Emplacement Dynamics

T05S02 Active Faults and Earthquake Chained Hazard Zonation

T05S03 Large-Scale Geohazard in Active Tectonic Region, as a Special Session of C24-IAEG

T05S04 Tectonics, Surface Processes, and Geohazards

T05S05 Mechanism, Evolution, and Prevention of Geological Hazards Caused by Earthquakes



Technical Session Index

Theme 6: Marine Engineering Geology, Marine Geoenvironment and Disasters – 3rd International Symposium on Marine Engineering Geology (ISMEG 2023)

T06S01 Geophysical Techniques and Methodological Advances for Marine Engineering Geology, Marine Geoenvironment and Disasters (Combined by T06S01/T06S08)

T06S02 Recent Development on Submarine Landslide and Its Hazard Chains

T06S03 Coastal Engineering Environment

T06S04 Seabed Process in Marine Environments and Engineering Geological Disasters (Combined by T06S04/T06S09)

T06S05 Geological Disasters Associated with Natural Gas Hydrate Systems and Their Effects on Marine Geological Environment

T06S06 Marine Carbon Dioxide Geological Storage and Shallow Gas Emission: Monitoring, Risk Evaluation and Mechanism (Combined by T06S06/T06S07)

Theme 7: Deep Earth Resource and Energy Exploitation

T07S01 Geomechanics for Deep Oil and Gas Exploitation along the Maritime Silk Road (Combined by T07S01/T07S07)

T07S02 Engineering Geology for Deep Mining and Energy Storage (Combined by T07S02/T07S03/T07S04)

T07S03 Exploration and Exploitation of Medium-deep Geothermal Resources (Combined by T07S06)

Theme 8: Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

T08S01 Georisk Assessment Using Machine Learning

T08S02 Recent Development of Numerical Models for Simulating Geohazard Processes and Chains of Geological Hazards

T08S03 Debris Flow Dynamic Process and Its Effects on Landform

T08S04 Debris Flows: Mechanics, Monitoring, Experiments, Assessment, Prevention, and Risk Management

T08S05 Research on Disaster Prevention and Environmental Protection in Japan

T08S07 Integrating Hydrologic Information into the Next Generation of Landslide Early Warning Systems (Combined by T08S06/T08S07)

T08S08 Mechanism, Mitigation, and Risk Management of Geohazards Triggered by Extreme Weather Events

T08S09 Chains of Geohazards: Mechanism, Modelling and Prediction

T08S10 Navigating Natural Hazard Risk Assessment and Management: Compound, Consecutive, and Cascading Events

T08S11 Coseismic Landslides: Disaster Risk Cognition and Reduction

T08S12 Advances in Disaster Reduction of Large Landslides: Activities of JTC1 and iRALL

T08S13 Advances in Modelling Rainfall-Induced Landslides

T08S14 Landslide Dams: Formation, Stability, Breaching and Risk Management

T08S15 Numerical Methods for Engineering Geology and Geohazards

Technical Session Index

Theme 9: Technological Innovation in Engineering Geology (3rd Shaoxing International Forum)

T09S01 Advanced Monitoring Technologies for Geoengineering

T09S02 In-situ Geo-technology (Combined by T09S02/T09S03)

T09S03 New Laboratory Techniques and Their Applications in Engineering Geology (Combined by T09S04)

T09S04 Current Trends and Future Perspectives of Machine Learning Applications in Geoscience and Engineering Geology (Combined by T09S05)

Theme 10: Applied Geology for Major Engineering Projects

T10S01 Geological Problems and Countermeasures in Transportation Tunnel Engineering (Combined by T10S01/T10S03)

T10S02 Large Deformation in Squeezing or Intensively Fractured Rocks

T10S03 Mechanism, Monitoring, and Early Warning of Dynamic Disasters in Deep Underground Engineering (Combined by T10S04/T10S05)

T10S04 Advanced Geological Prediction Techniques and their Applications in Tunnel Construction (Combined by T10S07)

T10S05 Engineered Slope Stability and Control (Combined by T10S05/T10S08)

T10S06 Physical Modeling for Geological and Geotechnical Engineering (Combined by T10S06/T10S09)

T10S07 Prevention and Mitigation of Geohazards in Reservoir Area (Combined by T10S10)

T10S08 Hazard Prevention and Control of Groundwater System (Combined by T10S06)

Theme 11: Preservation of Cultural Heritage and Engineering Geology

T11S01 Investigation, Design, and Monitoring of Cultural Heritage

T11S02 Material, Environment, and Digital Preservation of Cultural Heritage

T11S03 Engineering Geology in Preservation and Protection of Heritage Sites, Stone Resources, and Geo-heritage

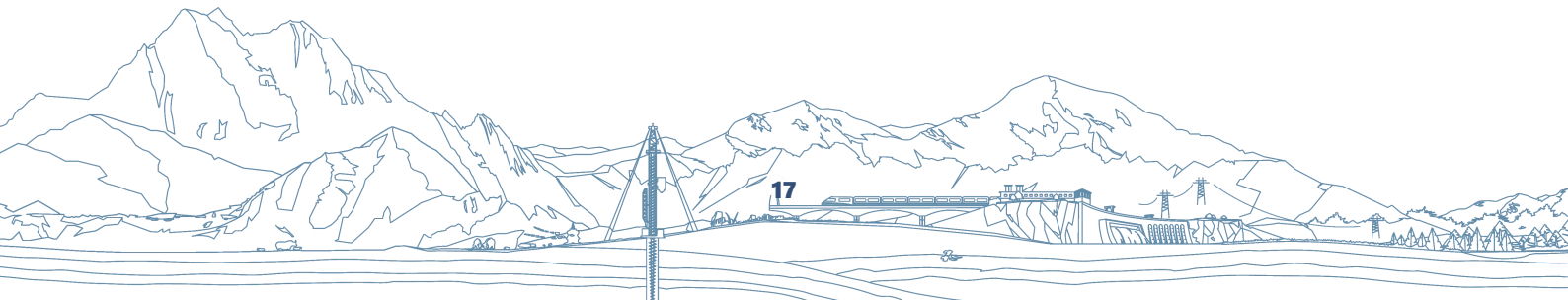
Theme 12: Young Engineering Geologist Afternoon

T12S01 Mitigating Climate-Induced Geohazards in Vulnerable Hotspots

T12S02 Multiphysics Coupling in Fractured Rocks and Its Engineering Application (Combined by T12S02/T12S04)

T12S03 Creep Characteristics of Rock and Soil Mass and Its Disaster-induced Mechanism: Testing, Monitoring, Early Warning, and Prevention (Combined by T12S03/T12S07)

T12S05 Geological Hazards and Risk Management (Combined by T12S05/T12S06)



Schedule of Events

ACTIVITIES	TIME	VENUE
September 20, 2023 | Wednesday		
2023 IAEG Executive Committee Meeting	14:00-18:00	Wuhou Hall
September 21, 2023 | Thursday		
2023 IAEG Council Meeting	14:00-18:00	Wuhou Hall
Training Courses	13:30-17:50	Shufeng Hall
September 22, 2023 | Friday		
Opening Ceremony	**08:30-10:20**	**Crystal Hall**
Welcome Speech	08:30-09:00	
Organizing Committee Report **Qiang Xu, Chair of Organizing Committee**	09:00-09:10	
Awards Ceremony **Hans Cloos Medal, Marcel Arnould Medal, Honorary President**	09:10-09:20	
Hans Cloos Medal Presentation **Faquan Wu** *Statistical Mechanics of Rock Masses -- A Rock Mechanics from Engineering Geology*	09:20-09:50	
Hans Cloos Medal Presentation **J. Louis van Rooy** *Engineering Geology in Africa: Challenges and Prospects*	09:50-10:20	
Coffee Break	*10:20-10:40*	
Keynote **Vassilis Marinos** *Revisiting Engineering Geology Core Values. Experiences from the Integration of Geology to Engineering the Last Two Decades*	10:40-11:10	
Keynote **Manchao He** *Double-block Mechanics and Accurate Landslide Prediction*	11:10-11:40	
Keynote **Jinxiu (Jenny) Yan** *Global Tunnelling Updates, Innovations and Way Forward*	11:40-12:10	
Lunch	*12:10-14:00*	
Keynote **Charles Wang Wai Ng** *Impact Mechanisms and Rational Design of Debris Flow Against Multiple Rigid Barriers*	14:00-14:30	
Keynote **Resat Ulusay** *Geo-engineering Aspects of the 6 February 2023 Devastating KahramanmaraŞ Earthquakes of Turkey and Lessons Learned*	14:30-15:00	

Schedule of Events

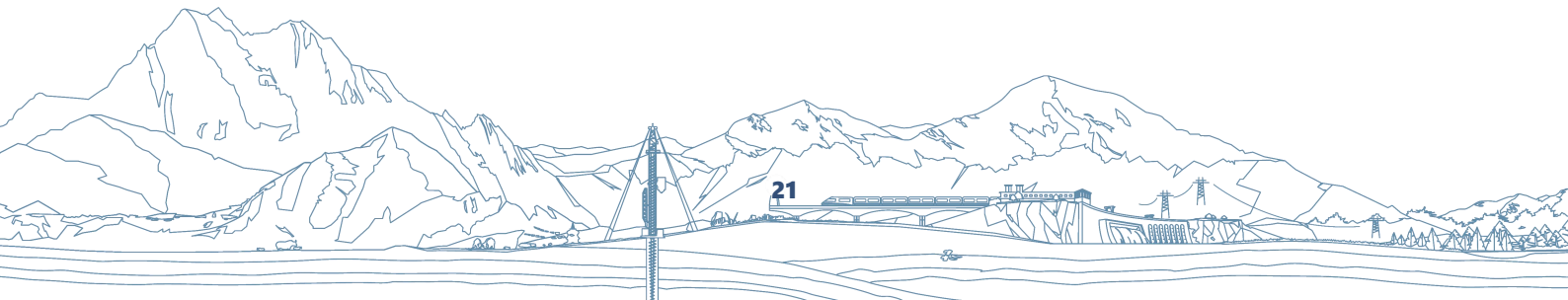
ACTIVITIES	TIME	VENUE
September 22, 2023 | Friday		
Keynote **Chungsik Yoo** *Sustainable Infrastructure Development – Fundamentals and Global Challenges*	15:00-15:30	Crystal Hall
Coffee Break	*15:30-15:50*	
Keynote **Nicola Casagli** *Radar Technologies for Landslide Monitoring and Rapid Mapping*	15:50-16:20	
Keynote **Xuanmei Fan** *Earthquake and Climate Change Induced Chains of Geological Hazards*	16:20-16:50	Crystal Hall
Keynote **Yueping Yin** *Challenges and Strategies of Risk Mitigation on Catastrophic Landslides in China*	16:50-17:20	
Welcome Banquet	19:00-20:30	Crystal Hall
Poster Session	09:30-17:50	Lobby, 5F
September 23, 2023 | Saturday		
T08S08 Mechanism, Mitigation, and Risk Management of Geohazards Triggered by Extreme Weather Events	08:20-10:25	Crystal Hall 1
T01S02 Structure of Soil and Rock Mass	08:20-10:30	Crystal Hall 2
T09S01 Advanced Monitoring Technologies for Geoengineering	08:20-10:15	Crystal Hall 3
T08S14 Landslide Dams: Formation, Stability, Breaching and Risk Management	08:20-10:15	Crystal Hall 4
T04S04 Expansive Soil/Clay and Its Environmental Effects (Combined by T04S10/T04S12)	08:20-10:30	Crystal Hall 5
T06S01 Geophysical techniques and Methodological Advances for Marine Engineering Geology, Marine Geoenvironment and Disasters (Combined by T06S01/T06S08)	08:20-10:30	Crystal Hall 6
T11S01 Investigation, Design, and Monitoring of Cultural Heritage	08:20-10:30	Wuhou Hall
T12S05 Geological Hazards and Risk Management (Combined by T12S05/T12S06)	08:20-10:30	Jinjiang Hall
T05S01 Rockslide/Rock Avalanches: Geomorphology, Sedimentology, and Emplacement Dynamics	08:20-10:30	Shufeng Hall
T03S01 Development and Utilization of Urban Underground Space and Adverse Geology (Combined by T03S01/T03S03/T03S07)	08:20-10:30	Shuhan Hall
Coffee Break	*10:30-10:45*	

Schedule of Events

ACTIVITIES	TIME	VENUE
September 23, 2023 | Saturday		
T08S13 Advances in Modelling Rainfall-Induced Landslides	10:45-12:05	Crystal Hall 1
T01S07 Multiphase Flow and Geomechanics in CO_2 Geological Sequestration	10:45-12:05	Crystal Hall 2
T09S01 Advanced Monitoring Technologies for Geoengineering	10:45-12:10	Crystal Hall 3
T08S05 Research on Disaster Prevention and Environmental Protection in Japan	10:45-11:50	Crystal Hall 4
T04S04 Expansive Soil/Clay and Its Environmental Effects (Combined by T04S10/T04S12)	10:45-12:05	Crystal Hall 5
T06S01 Geophysical techniques and Methodological Advances for Marine Engineering Geology, Marine Geoenvironment and Disasters (Combined by T06S01/T06S08)	10:45-12:05	Crystal Hall 6
T05S02 Active Faults and Earthquake Chained Hazard Zonation	10:45-11:50	Wuhou Hall
BOEG Session	**10:45-12:10**	**Gaoxin Hall**
T12S05 Geological Hazards and Risk Management (Combined by T12S05/T12S06)	10:45-12:10	Jinjiang Hall
T05S01 Rockslide/Rock Avalanches Geomorphology, Sedimentology, and Emplacement Dynamics	10:45-12:05	Shufeng Hall
T03S03 Recent Advances in Megacity Engineering Geology (Combined by T03S03/T03S05/T03S06/T03S07)	10:45-12:10	Shuhan Hall
Lunch	*12:10-13:20*	
T08S08 Mechanism, Mitigation, and Risk Management of Geohazards Triggered by Extreme Weather Events	13:20-15:45	Crystal Hall 1
T01S02 Structure of Soil and Rock Mass	13:20-15:35	Crystal Hall 2
T09S03 New Laboratory Techniques and Their Applications in Engineering Geology (Combined by T09S04)	13:20-15:25	Crystal Hall 3
T08S12 Advances in Disaster Reduction of Large Landslides: Activities of JTC1 and iRALL	13:20-15:30	Crystal Hall 4
T04S01 Biological and Ecological Geoenvironmental Engineering (Combined by T04S03/T04S04/T04S08/T04S09)	13:20-15:30	Crystal Hall 5
T02S01 Extreme Climate, Soil and Water Conservation, and Sustainable Development in Semiarid Regions (Combined by T02S01/T02S06)	13:20-15:30	Crystal Hall 6
T11S02 Material, Environment, and Digital Preservation of Cultural Heritage	13:20-15:00	Wuhou Hall
T10S03 Mechanism, Monitoring, and Early Warning of Dynamic Disasters in Deep Underground Engineering (Combined by T10S04/T10S05)	13:20-15:30	Gaoxin Hall

Schedule of Events

ACTIVITIES	TIME	VENUE
September 23, 2023 | Saturday		
T12S05 Geological Hazards and Risk Management (Combined by T12S05/T12S06)	13:20-15:25	Jinjiang Hall
T05S03 Large-Scale Geohazard in Active Tectonic Region, as a Special Session of C24-IAEG	13:20-15:35	Shufeng Hall
T03S03 Recent Advances in Megacity Engineering Geology (Combined by T03S03/T03S05/T03S06/T03S07)	13:20-15:30	Shuhan Hall
Coffee Break	*15:30-15:50*	
T08S08 Mechanism, Mitigation, and Risk Management of Geohazards Triggered by Extreme Weather Events	15:50-17:55	Crystal Hall 1
T01S02 Structure of Soil and Rock Mass	15:50-18:00	Crystal Hall 2
T09S03 New Laboratory Techniques and Their Applications in Engineering Geology (Combined by T09S04)	15:50-18:05	Crystal Hall 3
T08S12 Advances in Disaster Reduction of Large Landslides Activities of JTC1 and iRALL	15:50-17:55	Crystal Hall 4
T04S01 Biological and Ecological Geoenvironmental Engineering (Combined by T04S03/T04S04/T04S08/T04S09)	15:50-17:45	Crystal Hall 5
T02S02 Cryospheric Changes and Sustainable Development (Combined by T02S02/T02S03/T02S04)	15:50-18:00	Crystal Hall 6
T11S03 Engineering Geology in Preservation and Protection of Heritage Sites, Stone Resources, and Geo-heritage	15:50-18:00	Wuhou Hall
T10S04 Advanced Geological Prediction Techniques and Their Applications in Tunnel Construction (Combined by T10S07)	15:50-18:00	Gaoxin Hall
T12S02 Multiphysics Coupling in Fractured Rocks and Its Engineering Application (Combined by T12S02/T12S04)	15:50-18:00	Jinjiang Hall
T03S04 Seismic Characterization, Design and Analysis of Urban Underground Space (Combined by T03S04/T03S06)	15:50-18:00	Shufeng Hall
T03S02 Megacity Geotechnical Engineering under Complicated Geological Conditions (Combined by T03S08/T03S09)	15:50-18:00	Shuhan Hall
IAEG-C17 Workshop	**19:30-21:30**	**Wuhou Hall**
IAEG-C34 Workshop	**19:30-21:30**	**Jinjiang Hall**
Jointed Workshop of IAEG-C29, C36 & C38	**19:30-21:30**	**Shuhan Hall**
Poster Session	09:30-17:50	Lobby, 5F

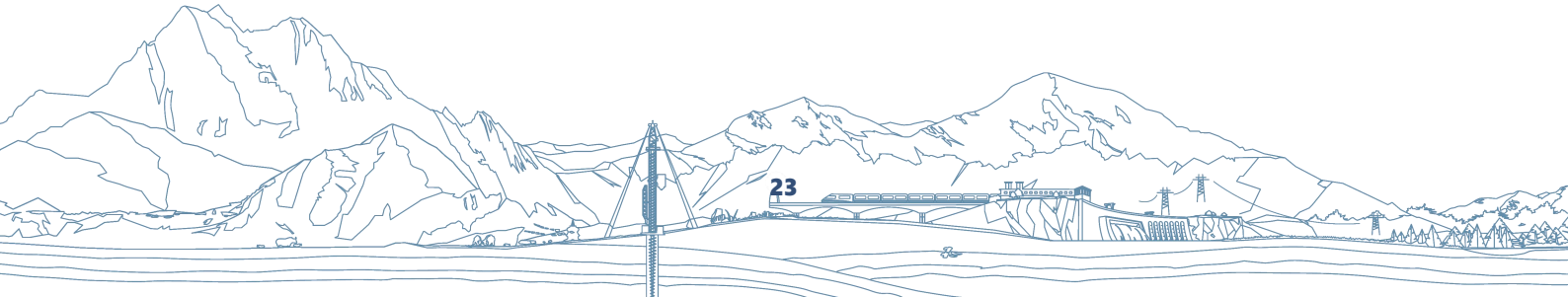


Schedule of Events

ACTIVITIES	TIME	VENUE
September 24, 2023 | Sunday		
T08S11 Coseismic Landslides: Disaster Risk Cognition and Reduction	08:20-10:25	Crystal Hall 1
T01S04 Rock Mass Engineering Geomechanics	08:20-10:10	Crystal Hall 2
T09S02 In-situ Geo-technology (Combined by T09S02/T09S03)	08:20-10:10	Crystal Hall 3
T08S01 Georisk Assessment Using Machine Learning	08:20-10:30	Crystal Hall 4
T07S01 Geomechanics for Deep Oil and Gas Exploitation along the Maritime Silk Road (Combined by T07S01/T07S07)	08:20-10:25	Crystal Hall 5
T02S05 Impact of Climate and Environmental Change on Engineering (Combined by T02S05)	08:20-10:30	Crystal Hall 6
T05S04 Tectonics, Surface Processes, and Geohazards	08:20-10:25	Wuhou Hall
T10S06 Physical Modeling for Geological and Geotechnical Engineering (Combined by T10S06/T10S09)	08:20-10:30	Gaoxin Hall
T10S07 Prevention and Mitigation of Geohazards in Reservoir Area (Combined by T10S10)	08:20-10:35	Jinjiang Hall
Coffee Break	*10:25-10:45*	
T08S11 Coseismic Landslides: Disaster Risk Cognition and Reduction	10:45-12:05	Crystal Hall 1
T01S04 Rock Mass Engineering Geomechanics	10:45-12:10	Crystal Hall 2
T09S02 In-situ Geo-technology (Combined by T09S02/T09S03)	10:10-12:20	Crystal Hall 3
T08S01 Georisk Assessment Using Machine Learning	10:45-12:15	Crystal Hall 4
T07S01 Geomechanics for Deep Oil and Gas Exploitation along the Maritime Silk Road (Combined by T07S01/T07S07)	10:45-12:05	Crystal Hall 5
T06S06 Marine Carbon Dioxide Geological Storage and Shallow Gas Emission: Monitoring, Risk Evaluation and Mechanism (Combined by T06S06/T06S07)	10:45-12:10	Crystal Hall 6
T05S04 Tectonics, Surface Processes, and Geohazards	10:45-11:50	Wuhou Hall
T10S06 Physical Modeling for Geological and Geotechnical Engineering (Combined by T10S06/T10S09)	10:45-12:10	Gaoxin Hall
T01S03 Engineering Geology and Environment of Redbeds	10:45-12:10	Jinjiang Hall
Lunch	*12:10-13:20*	

Schedule of Events

ACTIVITIES	TIME	VENUE
September 24, 2023 | Sunday		
T08S02 Recent Development of Numerical Models for Simulating Geohazard Processes and Chains of Geological Hazards	13:20-15:50	Crystal Hall 1
T01S04 Rock Mass Engineering Geomechanics	13:20-15:30	Crystal Hall 2
T09S02 In-situ Geo-technology (Combined by T09S02/T09S03)	13:20-15:30	Crystal Hall 3
T08S10 Navigating Natural Hazard Risk Assessment and Management: Compound, Consecutive, and Cascading Events	13:20-15:10	Crystal Hall 4
T06S05 Geological Disasters Associated with Natural Gas Hydrate Systems and Their Effects on Marine Geological Environment	13:20-15:30	Crystal Hall 5
T06S06 Marine Carbon Dioxide Geological Storage and Shallow Gas Emission: Monitoring, Risk Evaluation and Mechanism (Combined by T06S06/T06S07)	13:20-15:30	Crystal Hall 6
T12S01 Mitigating Climate-Induced Geohazards in Vulnerable Hotspots	13:20-15:45	Wuhou Hall
T10S05 Engineered Slope Stability and Control (Combined by T10S05/T10S08)	13:20-15:30	Gaoxin Hall
T12S03 Creep Characteristics of Rock and Soil Mass and Its Disaster-induced Mechanism: Testing, Monitoring, Early Warning, and Prevention (Combined by T12S03/ T12S07)	13:20-15:30	Jinjiang Hall
Meeting of the IAEG Asian National Groups	**13:30-15:30**	**Shurong Hall**
Coffee Break	*15:30-15:50*	
T08S02 Recent Development of Numerical Models for Simulating Geohazard Processes and Chains of Geological Hazards	15:50-18:00	Crystal Hall 1
T01S04 Rock Mass Engineering Geomechanics	15:50-18:00	Crystal Hall 2
T09S04 Current Trends and Future Perspectives of Machine Learning Applications in Geoscience and Engineering Geology (Combined by T09S05)	15:50-17:55	Crystal Hall 3
T08S15 Numerical Methods for Engineering Geology and Geohazards	15:50-18:15	Crystal Hall 4
T04S02 Sustainable Remediation of Contaminated Sites (Combined by T04S02/T04S05/T04S06/T04S07)	15:50-18:00	Crystal Hall 5
T06S02 Recent Development on Submarine Landslide and Its Hazard Chains	15:50-18:00	Crystal Hall 6
T12S01 Mitigating Climate-Induced Geohazards in Vulnerable Hotspots	15:50-18:00	Wuhou Hall
T10S08 Hazard Prevention and Control of Groundwater System (Combined by T10S06)	15:50-18:15	Gaoxin Hall
T12S03 Creep Characteristics of Rock and Soil Mass and Its Disaster-induced Mechanism: Testing, Monitoring, Early Warning, and Prevention (Combined by T12S03/ T12S07)	15:50-18:00	Jinjiang Hall

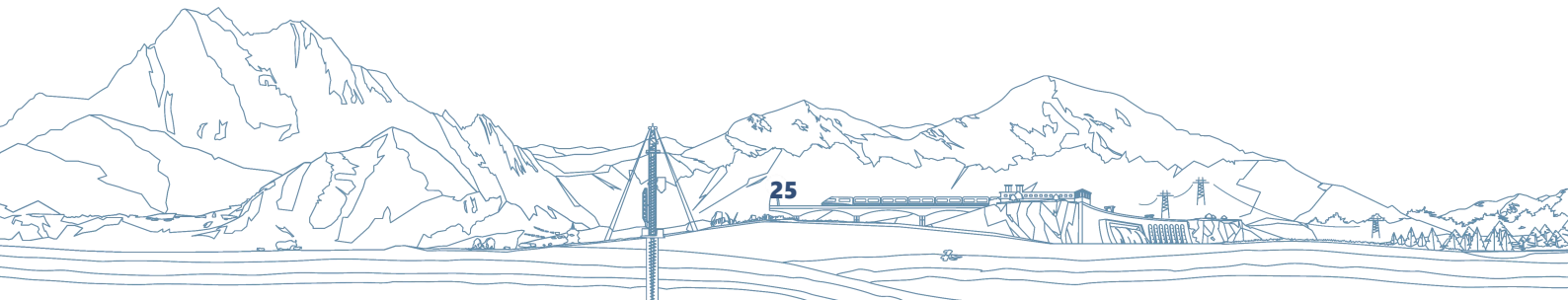


Schedule of Events

ACTIVITIES	TIME	VENUE
September 24, 2023 | Sunday		
Inaugural Meeting of Global Partnership for Smart Informatics and Multi-hazard Reduction	**20:00-21:30**	**Wuhou Hall**
Poster Session	09:30-17:50	Lobby, 5F
September 25, 2023 | Monday		
T08S02 Recent Development of Numerical Models for Simulating Geohazard Processes and Chains of Geological Hazards	08:20-10:30	Crystal Hall 1
T01S05 Interface Engineering Geomechanics	08:20-10:25	Crystal Hall 2
T07S02 Engineering Geology for Deep Mining and Energy Storage (Combined by T07S02/T07S03/T07S04)	08:20-10:25	Crystal Hall 3
T08S03 Debris Flow Dynamic Process and Its Effects on Landform	08:20-10:30	Crystal Hall 4
T04S02 Sustainable Remediation of Contaminated Sites (Combined by T04S02/T04S05/T04S06/T04S07)	08:20-10:30	Crystal Hall 5
T06S03 Coastal Engineering Environment	08:20-10:30	Crystal Hall 6
T05S05 Mechanism, Evolution, and Prevention of Geological Hazards Caused by Earthquakes	08:20-10:25	Wuhou Hall
Coffee Break	*10:30-10:45*	
T08S04 Debris Flows: Mechanics, Monitoring, Experiments, Assessment, Prevention, and Risk Management	10:45-12:10	Crystal Hall 1
T01S05 Interface Engineering Geomechanics	10:45-12:05	Crystal Hall 2
T07S02 Engineering Geology for Deep Mining and Energy Storage (Combined by T07S02/T07S03/T07S04)	10:45-12:05	Crystal Hall 3
T01S01 Ground Property Characterization from In-Situ Tests	10:45-12:05	Crystal Hall 4
T04S02 Sustainable Remediation of Contaminated Sites (Combined by T04S02/T04S05/T04S06/T04S07)	10:45-12:10	Crystal Hall 5
T06S03 Coastal Engineering Environment	10:45-12:10	Crystal Hall 6
T05S05 Mechanism, Evolution, and Prevention of Geological Hazards Caused by Earthquakes	10:45-12:05	Wuhou Hall
Lunch	*12:10-13:20*	

Schedule of Events

ACTIVITIES	TIME	VENUE
September 25, 2023 | Monday		
T08S04 Debris Flows: Mechanics, Monitoring, Experiments, Assessment, Prevention, and Risk Management	13:20-15:15	Crystal Hall 1
T01S06 Behavior and Treatment of Special Soil and Soft Rock	13:20-15:30	Crystal Hall 2
T07S03 Exploration and Exploitation of Medium-deep Geothermal Resources (Combined by T07S06)	13:20-15:25	Crystal Hall 3
T08S09 Chains of Geohazards: Mechanism, Modelling and Prediction	13:20-15:30	Crystal Hall 4
T04S05 Solid Waste Landfills and Relevant Environmental Geotechnics (Combined by T04S11)	13:20-15:25	Crystal Hall 5
T06S04 Seabed Process in Marine Environments and Engineering Geological Disasters (Combined by T06S04/T06S09)	13:20-15:15	Crystal Hall 6
T10S01 Geological Problems and Countermeasures in Transportation Tunnel Engineering (Combined by T10S01/T10S03)	13:20-15:30	Wuhou Hall
Coffee Break	*15:30-15:50*	
T08S07 Integrating Hydrologic Information into the Next Generation of Landslide Early Warning Systems (Combined by T08S06/T08S07)	15:50-17:50	Crystal Hall 1
T01S06 Behavior and Treatment of Special Soil and Soft Rock	15:50-18:00	Crystal Hall 2
T01S08 Unsaturated Soil Mechanics	15:50-18:00	Crystal Hall 3
T08S09 Chains of Geohazards: Mechanism, Modelling and Prediction	15:50-17:00	Crystal Hall 4
T04S05 Solid Waste Landfills and Relevant Environmental Geotechnics (Combined by T04S11)	15:50-18:00	Crystal Hall 5
T04S03 NbS (Nature-based Solution) for Environmental Protection and Ecological Restoration (Combined by T04S01/T04S07)	15:50-18:00	Crystal Hall 6
T10S02 Large Deformation in Squeezing or Intensively Fractured Rocks	15:50-18:00	Wuhou Hall
Poster Session	09:30-17:50	Lobby, 5F
Closing Ceremony	**18:00-18:40**	**Crystal Hall**
Awards Ceremony **Science and Technology Award, Richard Wolters Prize, Runner-up Richard Wolters Prize, Honorary Membership, Best Poster Awards**	18:00-18:20	
Introducing IAEG Congress in 2026	18:20-18:30	
Closing Speech **Vassilis Marinos, Qiang Xu**	18:30-18:40	



Hans Cloos Medal 2020

Faquan Wu

For more than 40 years, Prof. Faquan Wu, has long been engaged in the theory and application research of engineering geology and rock mechanics. He is renowned for his pioneering work in statistical rock mechanics, putting forward the structural statistics theory and parameter modeling of fractured rock mass, as well as statistical fracture mechanics theories. All these theories have provided essential theoretical foundations for analyzing fractured rock masses.

His expertise extends to practical applications in engineering geological procedures for high and steep rock mass slopes. His work at Jinping I Hydropower Station, one of the world's top double-curvature arch dams, exemplifies his contributions to understanding deep cracks in challenging terrain.

His accolades include receiving the 2nd prize of Science & Technology from Hubei Province, China, in 1997 and the 2nd prize of Science & Technology from the Chinese State Council in 2009. Prof. Wu's global impact is evident through his initiation of the IAEG Science and Technology Award and the establishment of the Shaoxing International Forum, a biennial platform for discipline development.

He has held influential positions within the International Association for Engineering Geology and the Environment (IAEG), serving as the President of IAEG China National Group and multiple terms as Secretary General, making him the first Asian to hold this position in IAEG's history.

Hans Cloos Medal 2022

J. Louis van Rooy

Louis van Rooy is a highly regarded engineering geologist known for his substantial contributions to the field both at a local and international level. His enduring commitment to advancing engineering geology has left an indelible mark.

Van Rooy served as the president of the South African Institute for Engineering and Environmental Geologists (SAIEG) and as vice-president of Africa for the International Association for Engineering Geology and the Environment (IAEG). His engagement across Africa fostered collaboration and facilitated knowledge exchange.

With over 50 peer-reviewed papers published in esteemed journals and proceedings, Louis demonstrates his scholarly impact. Currently, he is actively involved in authoring books for the Groundwater Project, a charitable initiative creating free specialist textbooks.

Van Rooy is at the forefront of revising SAIEG's guidelines on Engineering Geological Soil Profiling, Core Logging, and Percussion Chip Logging, standardizing international terminology and methods.

As an extraordinary professor at the University of Pretoria, Louis has mentored numerous students, enriching various fields including soil and rock mechanics, rock engineering, hydrology, and more. His students, in demand globally, have made contributions to the development of institutions across Africa.

Louis actively shares knowledge through workshops, seminars, and conferences, emphasizing promoting research and education in the field of engineering geology.

IAEG Awards

Marcel Arnould Medal 2020

Martin Culshaw

Prof. Martin Gordon Culshaw is a distinguished figure in engineering geology.

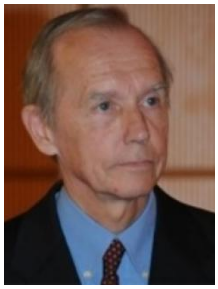
His illustrious career spans over 30 years, marked by significant contributions to IAEG and the broader field. With 31 years of IAEG membership, he held pivotal roles, including non-executive member of the IAEG Executive and member of Council. His leadership was instrumental in the Commission on Engineering Geological Maps, producing valuable guides and geohazard papers.

Prof. Culshaw's editorial prowess was evident during his tenure as Editor-in-Chief of the Bulletin of Engineering Geology and the Environment (BOEG). Under his guidance, the journal transitioned to digital submissions, witnessed a substantial increase in paper submissions, and a remarkable rise in its impact factor.

Beyond IAEG, Prof. Culshaw played key roles in engineering geology, contributing to professional growth. He championed education by supervising PhD students, examining dissertations, and delivering guest lectures at prestigious universities.

Prof. Culshaw authored over 160 papers, earned numerous awards, and received acclaim for his outstanding contributions to engineering geology. Colleagues praise his warm, charismatic, and diplomatic communication style, coupled with effective problem-solving skills.

Marcel Arnould Medal 2022



Christian Schroeder

Professor Christian Schroeder, a founding member of the Belgian Group in 1970, has played a pivotal role in the Belgian National Group of IAEG. Over the years, he held key positions, including secretary-treasurer from 1981-1985 and treasurer from 1996-2007. His leadership extended to the establishment of the Belgian Society of Geology of Engineering and Mechanics of Rocks in 2007, where he served as treasurer until 2010 and remained a council member until 2021.

Prof. Schroeder's scientific contributions are extensive and impressive, encompassing research and consultancy projects worldwide.

Throughout his academic career, Prof. Schroeder has been a mentor for young engineers and engineering geologists. He has supervisd numerous theses and served on doctoral thesis juries at various European universities.

With over 170 publications, including books, articles in peer-reviewed journals, conference proceedings, and congress papers, Prof. Schroeder has made significant contributions to practical topics relevant to contemporary scientific and industrial challenges.

Prof. Christian Schroeder's lifelong dedication to the engineering geology community exemplifies his unwavering commitment and service, making him a highly esteemed figure within the Belgian Society and win him global recognition in the field of engineering geology.

Honorary President 2021

Paul Marinos

Professor Paul Marinos stands as a distinguished figure with a profound impact on the IAEG's growth and worldwide reach.

As Emeritus Professor of Engineering Geology at the National Technical University of Athens (NTUA) and Past President of the Geological Society of Greece, Prof. Marinos boasts a remarkable background. He received a Mining Engineering degree from NTUA, completed postgraduate studies in Applied Geology and earned a Doctorate from the University of Grenoble, France. Prof. Marinos has been recognized with several prestigious awards, including the Hans Cloos Medal of IAEG, André Dumont Medal of the Geological Society of Belgium, and the Glossop Medal of the Geological Society of London.

His journey with IAEG began in 1972 when he first encountered the 'Bulletin of Geological Engineering', which marked the beginning of his lifelong commitment to the association. Over the years, Prof. Marinos assumed several pivotal roles, including Vice President for Europe and eventually President of IAEG. During his presidency, in 1997, the association changed the name to the 'International Association for Engineering Geology and the Environment', to highlight its commitment to environmental protection.

Prof. Marinos' leadership began a new period for the IAEG journal, the 'Bulletin of Engineering Geology and Environment'. Under his guidance, the journal transitioned from biennial to quarterly publication, improving peer review and visibility.

His tenure also witnessed the expansion of national groups, fostering global collaboration. Prof. Marinos actively engaged with sister organizations such as ISRM and ISSMGE, strengthening inter-association relationships.

As global ambassador for the IAEG, Prof. Marinos traveled extensively, attending important conferences, consulting on major civil engineering projects, and expanding IAEG's presence in remote regions. His commitment to maintaining IAEG's integrity and promoting its growth is a testament to his profound impact on the association.

For his extraordinary and long-term contributions to the development of IAEG, Prof. Paul Marinos was made an Honorary President of IAEG.

IAEG Awards

Science and Technology Awards 2023

Academic Achievement Award

Xuanmei Fan

Prof. Xuanmei Fan serves as deputy director of State Key Laboratory of Geohazards Prevention and Geoenvironment Protection, director of Department of international cooperation and exchange of Chengdu University of Technology. She has made remarkable contributions to bridging the knowledge disparity regarding the intricate interconnections between earthquake-induced geological hazards and regional morpho-lithological, tectonic, and climatic specificities.

She has devised innovative computational methodologies and an advanced early warning system to assess, predict, and mitigate the risk associated with earthquake-induced geological hazards for the scientific community and stakeholders. Her endeavors have significantly enhanced the effectiveness of risk reduction strategies for immediate, near-term, and long-term geological hazards. Her research outcomes played a significant role in the relief and reconstruction efforts following multiple major earthquakes in China, including the Wenchuan, Lushan, Jiuzhaigou, and Luding earthquakes, which brought remarkable social and economic benefits. Her research findings have been published in 207 papers in prestigious geoscience journals, including Nature Geoscience, Reviews of Geophysics, Earth Science Reviews, Geophysical Research Letters, and others, receiving a total of more than 6000 citations.

Science and Technology Awards 2023

Technology Progress Award

Zhigang Shan

Prof. Zhigang Shan serves as the Chief Geologist at POWERCHINA Huadong Engineering Corporation Limited. He is also the Chief Technical Expert of Power Construction Corporation of China, a doctoral supervisor at Hohai University, and a part-time professor at Northeastern University.

He has received several prestigious honors, including recognition as an expert enjoying a special allowance from the State Council, designation as a national candidate in the Millions of Talent Projects, and recognition as a national outstanding contribution expert and national master of electric power survey and design.

He has been dedicated to the geological surveys and research associated with Jinping II project for nearly 30 years. As the geological director, he has successfully addressed a range of significant engineering geological challenges. These include conducting hydrogeological surveys in the karst regions of alpine and gorge terrains, identifying geological disaster risks associated with deep-buried long tunnels, and classifying surrounding rocks subject to high crustal stress and external water pressure. These efforts have provided a solid scientific foundation for the construction of Jinping II Hydropower Station. His noteworthy accomplishments have significantly contributed to advancing both the theory and practice of karst research, and have played a pivotal role in fostering karst engineering exploration and driving scientific and technological advancements in this field.

Richard Wolters Prize 2022

Jennifer J. Day

Dr. Jennifer Day is a distinguished Geological Engineer, and registered as a Professional Engineer and Professional Geoscientist in Canada. She specializes in engineering geology, rock mechanics, geohazards, and advanced computational analysis for complex rockmasses in mining and tunnelling applications. She is currently President of the Canadian Rock Mechanics Association and Chair of the Rock Mechanics Division of the Canadian Geotechnical Society.

Her academic journey includes tenure-track positions at Queen's University and the University of New Brunswick, where she completed her PhD in Geological Engineering. She has raised over $1,000,000 CAD in research funding, supervised numerous research students, and advised undergraduate design projects.

Dr. Day's research focuses on characterizing heterogeneous ground, developing geomechanics laboratory test methods for rock engineering design, and assessing engineering geology risks in natural shoreline rock formations. She has authored over 70 publications and received international recognition, including the 2022 Richard Wolters Prize for outstanding young engineering geologists.

In her faculty role, Dr. Day teaches various geological and engineering courses. Her excellence in teaching has been recognized with the Golden Apple Teaching Award. She also contributes to professional societies and offers technical reviews for journals, conference proceedings, and grant applications. Beyond her academic pursuits, she's actively involved in music, singing, and playing trumpet in choirs and ensembles.

Richard Wolters Prize 2022

Yifei Cui

Dr. Yifei Cui is currently an associate professor in the Department of Hydraulic Engineering at Tsinghua University, specializing in the field of Engineering Geology and Geotechnical Engineering.

His research focuses on physical and mechanical behavior of granular materials, soil internal erosion, debris flow mitigation measures, and seismic techniques for the monitoring of geological hazards.

He has published 50 peer-reviewed papers in top international journals, including Earth Surface Dynamics, Engineering Geology and Landslides. These publications have garnered over 1900 citations. Dr. Cui boasts an impressive H-index of 26 according to the google scholar database.

Dr. Yifei Cui is the individual member of IAEG, ICGdR, ISSMGE. He is also serving as the Editor of Landslides, GeoRisk, and National Science Review. He was honored with IAEG Richard Wolters Prize in 2021, and ICGdR Outstanding Young Scientist Award in 2022.

IAEG Awards

Runner-up Richard Wolters Prize 2022

Wenping Gong

Prof. Wenping Gong, from China University of Geosciences, is a distinguished nominee for the IAEG Richard Wolters Prize 2022. His research centers on engineering geology, particularly in geohazards, site characterization, risk and reliability, uncertainty modeling, and remote sensing.

Prof. Gong's significant academic contributions include pioneering research in remote sensing image analysis for automatic landslide identification and quantitative risk assessment. He has authored more than 70 research journal papers and 28 peer-reviewed conference papers, with an h-index of 29 and over 2100 citations on Google Scholar. His key areas of expertise include: i) probabilistic site characterization and reliability-based design methods; ii) artificial intelligence analysis of remote sensing images for automatic geohazards identification; and iii) integration of probability and vulnerability concepts in landslide risk assessment. His academic contributions have been recognized with the Young Researcher Award (2022) by GEOSNet and invited for the Bright Spark lecture (2022) in ISGSR 2022 by ISSMGE.

In addition to his scholarly pursuits, Prof. Gong demonstrates a strong commitment to his profession. He currently holds the role of Co-Editor-in-Chief of Engineering Geology and contributes to the editorial boards of several respected international journals, including the Bulletin of Engineering Geology and the Environment (the official IAEG journal). He also actively participates in technical committees and has organized numerous technical sessions at conferences.

Prof. Gong's outstanding achievements qualify him for the IAEG Richard Wolters Award. His contributions hold promise for furthering international collaboration in the field of engineering geology.

Runner-up Richard Wolters Prize 2022

Gianvito Scaringi

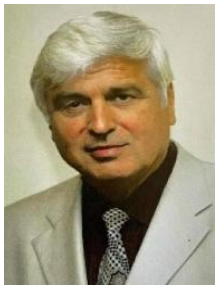
Dr. Gianvito Scaringi, an assistant professor at Charles University in Prague, Czech Republic, is an accomplished researcher in engineering geology. His extensive contributions include pioneering remote sensing-based landslide identification and risk assessment, resulting in over 50 publications with nearly 1500 citations and an H-index of 20.

His research ranges from chemo-mechanical coupling in clays to the impact of the 2008 Wenchuan Earthquake and large rock avalanche dynamics. He has provided the most complete inventories of earthquake-induced landslides and co-led an international team's comprehensive review of earthquake-induced geologic hazards.

Dr. Scaringi's current work explores climate change's effects on temperate region landslides, investigating how warmer temperatures may directly weaken soil and rock, potentially increasing landslides.

As President of the IAEG National Group of Czech Republic and an IAEG Bulletin Editorial Board Member, he is actively engaged in the engineering geology community. Dr. Scaringi's passion for research and commitment to the IAEG make him a promising future leader in the field. His recognition as the runner-up for the Richard Wolters Prize is well-deserved.

Honorary Membership 2019



Kiril Anguelov

Dr. Kiril Anguelov, a distinguished figure in engineering geology, made significant contributions to IAEG and the field of geotechnical engineering. With a background in engineering geology and hydrogeology, he graduated from the University of Mining and Geology in Sofia, Bulgaria, in 1972. He furthered his studies as a postgraduate student at Moscow State University, specializing in soil and rock engineering.

Kiril Anguelov served as a lecturer on engineering geodynamics, regional engineering geology, and engineering geoecology at prominent Bulgarian universities. He extended his expertise globally, delivering lectures in several countries.

His IAEG journey began in 1982, where he was a founding member of the Bulgarian national group and served as its secretary for many years. He also held the position of Vice President IAEG for Eastern Europe from 1990 to 1994, playing a pivotal role in restructuring European national groups within IAEG.

Anguelov's significant contributions include organizing two successful IAEG International Symposiums on Natural Disasters in Sofia in 2005 and 2016. Notably, he was the first recipient of the Richard Wolters Prize, a prestigious IAEG award for young professionals, in 1982.

As one of IAEG's longest-serving Executive Committee members, Kiril Anguelov preserves the association's history and traditions, ensuring IAEG's legacy endures for generations to come. His unwavering commitment to IAEG and engineering geology merits his nomination for Honorary Membership.

Honorary Membership 2020

Victor Ivanovich Osipov

Dr. Victor Ivanovich Osipov is a renowned figure in the field of environmental geoscience and engineering geology, meriting his nomination as an Honorable Member of IAEG. As an international expert, he has made significant contributions to soil and rock engineering, geological hazard studies, natural risk assessment, and disaster mitigation. With 700+ scientific publications, including 13 monographs and 20 patents, he's earned national awards and recognition.

Dr. Osipov is the member of IAGE since 1978 and he has been tightly connected to the association since its early years. He organized international events and served as the scientific and executive secretary of Organizing Committees. He chaired Commission No.12 on soil properties and was Vice-President for Eastern Europe. From 1990 to 2019, he chaired the Russian national group of IAEG, contributing to numerous IAEG events and meetings. He also co-chaired the International Symposium 'Engineering Geological Problems in Urban Areas' and hosted the IAEG Conference 'Environmental Geosciences and Engineering Survey for Territory Protection and Population Safety', receiving the prestigious Hans Cloos medal in 2012.

Dr. Osipov's unwavering dedication and remarkable contributions make him a fitting choice for IAEG's Honorable Membership. His legacy continues to enrich the global community of engineering geologists and geoscientists.

IAEG Awards

Honorary Membership 2022

Fred Baynes

Dr. Fred Baynes, a distinguished engineering geologist, has been nominated for honorary membership in the International Association of Engineering Geology (IAEG). With extensive expertise and significant contributions to the field, Dr. Baynes is a renowned figure in geology.

Educated in the UK, he holds degrees from esteemed institutions, including Bristol University and Imperial College. He immigrated to Australia in 1980, where he has worked as an independent consultant engineering geologist, providing invaluable insights to projects worldwide. Dr. Baynes has been actively involved in IAEG for over three decades, serving as Vice President for Australasia and later as IAEG President, where he initiated vital changes for the association's progress.

Throughout his tenure, he championed modernization, better member services, and fostering global networking opportunities. Dr. Baynes is also recognized for revitalizing IAEG Commissions and enhancing the technical content in IAEG Bulletin.

His contributions extend beyond his leadership roles. He has authored numerous papers, contributed to professional development courses, and played a crucial role in revising Australian geotechnical standards. Dr. Baynes' dedication to mentoring and promoting engineering geology underscores his commitment to the profession's future.

Dr. Baynes' exceptional impact on engineering geology practice, through his publications and guidelines, solidifies his nomination as an IAEG Honorary Member. His devotion to the field and unwavering commitment to its growth make him a distinguished candidate.

Honorary Membership 2023

Giorgio Lollino

Giorgio Lollino stands as a distinguished candidate for IAEG Honorary Membership, recognized for his exceptional contributions and dedication to this field. His achievements include chairing the XII IAEG Congress in Turin in 2014, which attracted over 1200 participants from 58 countries and gave rise to a highly acclaimed proceedings publication by Springer. Giorgio Lollino has also served as Editor-in-Chief of IAEG Bulletin, President of the Italian National Group IAEG (2007-2011), and the CNR Representative at IAEG.

His expertise in geotechnical monitoring led to his presidency of IAEG Commission C35: Monitoring Methods and Approaches in engineering geology. He played a pivotal role as Web Editor in Chief of the IAEG's official website from 2009 to 2023 and served as Vice President for Europe from 2014 to 2018. In 2016, he was honored with the 'Marcel Arnould Medal' for his outstanding service to IAEG and contributions to the field of Engineering Geology.

Giorgio Lollino's unwavering commitment to IAEG and his significant role in advancing the association make him a highly deserving candidate for IAEG Honorary Membership.

Honorary Membership 2023

Paolo Allasia

Paolo Allasia is an outstanding candidate for IAEG Honorary Membership, celebrated for his exceptional contributions and unwavering dedication. Holding a civil engineering degree and a Ph.D. in engineering geology focused on environmental and infrastructure preservation. Paolo Allasia is a senior researcher technologist at the Research Institute for Hydrogeological Prevention and Protection of the Italian National Research Council (CNR).

Within CNR's Geohazard Monitoring Group, Paolo has played a pivotal role in developing and designing sophisticated monitoring networks for analyzing landslide activities and their impacts. His expertise has been in high demand in various EU and national projects, and he is frequently called upon to provide technical and scientific support during national emergencies related to geo-hydrological hazards.

For many years, Paolo Allasia has demonstrated unwavering dedication to IAEG, serving in various capacities that have significantly contributed to the association's growth and development. Notably, he collaborated with Giorgio Lollino on Web Editor activities from 2009 to 2023. Paolo's leadership as Head of the IAEG-GDPR Platform, responsible for managing IAEG members' data in compliance with EU data protection regulations, highlights his dedication to the association's welfare.

Considering his extensive contributions and unwavering commitment, IAEG recognizes his outstanding achievements in the field of engineering geology.

Keynote Speakers

Vassilis Marinos

President of IAEG

Vassilis Marinos is President of the International Association for Engineering Geology and the Environment (IAEG) for the period 2023 – 2026. He is an Assistant Professor of Engineering Geology and Rock Mechanics at the National Technical University of Athens, School of Civil Engineering, Geotechnical Division.

He was born in 1976 in Athens, Greece. He holds a Doctoral Degree from the National Technical University of Athens (NTUA), School of Civil Engineering, Geotechnical Division, an MSc in Engineering Geology with Distinction from Imperial College and a bachelor's degree in Geology from the University of Athens (1st in graduation list).

He has published more than 100 papers in international journals, book chapters and international congresses. His research interests are in the field of the geotechnical classification and behaviour of weak and complex rock masses in tunnelling, landslide hazard and risk analysis, natural gas pipelines, construction of geotechnical database for tunnels and urban environments, rock slope stability and evaluation and analysis of ground movement in mines. His professional experience involves consulting services for numerous highway projects, tunnelling, rockfall and landslide analysis, geohazards correlated to natural gas pipelines but also engineering geological work in the field such as mapping, geoengineering models, geotechnical classification, geotechnical evaluation of ground investigation programs, geo-data processing, design of engineering structures in rock.

He has been a member of numerous professional and scientific bodies such as ISRM, ISSMGE, ITA, a member of the editorial boards of the scientific journals 'Bulletin of Engineering Geology and the Environment' and 'Journal of Geotechnical and Geological Engineering' as well as a reviewer for numerous journals, such as 'Rock Mechanics and Rock Engineering', 'Journal of Rock Mechanics and Mining Sciences', 'Engineering Geology', 'Journal of Geotechnical and Geological Engineering' and 'Tunnelling and Underground Space Technology' and others.

Revisiting Engineering Geology Core Values. Experiences from the Integration of Geology to Engineering the Last Two Decades

10:40-11:10, Sept. 22 | Crystal Hall

Abstract: Today's knowledge and the powerful tools we have in our arsenal have increased our capacity to design and construct more efficiently and in more and more, difficult sites and reduce the uncertainty and the acceptable remaining risk. But we are not at the end of this route. It is still always not possible to have an unquestionable answer to many of the problems associated with the work and reach the degree of accuracy that characterizes the other sectors of Engineering. And this is due to many parameters: i) the spatial distribution of the geomaterials with uncertain or fuzzy margins, a dependency of the geologic evolution; ii) the big number of parameters with a broad dispersion of values often for the same geomaterial and difficult to test, iii) the laws of behaviour are still approximate. It is then obvious why the geological judgment for understanding the behaviour of geomaterials must be always present and why is so important. Hence, geological representativeness is key to achieving effective engineering design to meet higher demand for reliable input data related to ground properties required as input into numerical analysis. This is described in the definition of Engineering Geology.

Indeed, we have progressed significantly, in many fields, the last two decades in Engineering Geology. In 'putting numbers in geology' and ground investigation methods. The technological innovations have been also a powerful tool for analysing and managing geohazards. A trend of deviation of Engineering Geology can be seen internationally though. What happens so often to the Geology in Engineering Geology? Cases are observed with departure from the common ground in Engineering Geology, Soil Mechanics and Rock Mechanics, sometime with Engineering Geology not even standing up to its intellectual merits, methods and procedures. A geostatistical analysis of laboratory and field tests, a geotechnical classification value, a tectonic diagram generated automatically, thematic maps derived from a UAV or LiDar or Satellite images cannot dominate upon any other judgment and cover all our works and tasks. It always takes geological insight for one Engineering Geologist. We need to revisit our Engineering Geology 'core values'. To ensure that there is a good understanding

and knowledge of geological processes by developing sound engineering geological models, preferably 3-D ones that are of primary importance in the planning of engineering projects. As Engineering Geologists, this is exactly our great advantage. Being able to answer: 'how is the ground?' and 'how the ground works?'.

To highlight the integration of Geology to Engineering in the design and construction of several projects in the last two decades, several examples will be presented.

Manchao He

Academician of CAS

Prof. Manchao He is currently an Academician of Chinese Academy of Sciences (CAS), foreign Academician of Argentine National Academy of Engineering (ANI) and Russian Academy of Mining Sciences (AGN), the Director of State Key Laboratory for Geomechanics and Deep Underground Engineering (SKLGDUE) in Beijing, and Professor of China University of Mining and Technology-Beijing (CUMTB), China. He is the President of the Chinese Society for Rock Mechanics and Engineering (CSRME). He is also the Vice President and honorary fellow of International Consortium on Geo-disaster Reduction (ICGdR).

He mainly engaged in the research of Rock Mechanics and Engineering, including landslide, active fault stability analysis, monitoring and control, mining technologies, rockburst mechanism, etc. He successfully self-developed a new monitoring system which measures the Newton Force Variation along the slip surface of landslide. He has been awarded 4 National Awards, 2 Chinese Outstanding Patented Invention and 1 International Society for Rock Mechanics and Rock Engineering (ISRM) Technological Innovation Award.

Double-block Mechanics and Accurate Landslide Prediction

11:10-11:40, Sept. 22 | Crystal Hall

Abstract: Landslide is one of the major geological disaster causing huge casualties and economic losses each year across the world. The short-term prediction of landslides is well-known almost mission impossible for past human history. The creation of a new landslide monitoring system in 2009 totally turned over the situation. The landslides can be shown in a model of double blocks separated by a sliding plane. It can be successfully predicted by the new monitoring system which measures the Newton Force Variation along the slip surface of landslide. During the past 14 years, more than 700 monitoring sites, which covered different types of landslides, have been set up in China. Among those monitoring sites, 18 landslides have happened and all of them have been predicted by the system. The monitoring system can give a 3.5 to 20 hours of short-term warning time before the landslides. After analyzing the graphic results from all monitoring sides of different landslide types and weather conditions, the sharp decrease pattern on the graphics of Newton Force Variation was proven to be the only necessary and sufficient factor that indicating the happening of the landslide.

Jinxiu (Jenny) Yan

Immediate Past President of ITA

Prof. Jinxiu YAN is the immediate Past President of the International Tunnelling and Underground Space Association (ITA) (2022-2025) and Deputy General Manager of China Railway Academy Co., Ltd.

Prof. YAN has been working as a researcher and consulting engineer for many major tunnel projects for more than 35 years. As the research team leader or expert appointed by both the government and project owners, she has been several research or consulting team leaders to cope with challenges in the design and construction of extensive railway and highway tunnels, metro projects, and major subsea tunnels, such as the 32km New Guanjiao Railway Tunnel, the 18km Qining Zhongnanshan Highway Tunnel, and the 13 km long Yesahnguan Tunnel in Karstic geology; the 15.9 km Qingdao Jiaozhou Bay Second Subsea Highway Tunnel in China (it will be the world longest subsea highway tunnel when completed) etc.. Prof. Yan has received five major awards in Tunnelling Innovations. Recently, she has been devoting much of her energy to the better use of tunnelling and underground space in urban areas.

Global Tunnelling Updates, Innovations and Way Forward

11:40-12:10, Sept. 22 | Crystal Hall

Abstract: Despite the impact of the COVID-19

pandemic over the past three years, the global tunnelling industry continues to progress. Worldwide, the number of tunnelling projects is on the rise, particularly in the areas of railway tunnels, highway tunnels, urban subways, and underground space projects related to sustainable development initiatives. This presentation will present the latest developments, innovations, and future trends in the global tunnelling industry, covering three key aspects:

1. Overview of Major Global Tunneling Projects: This section encompasses ongoing significant tunnelling projects, including the construction of three major binational tunnel projects in Europe, urban subway projects, and the development of underground urban spaces worldwide.

2. Innovations in Tunneling Technology: It delves into recent technological innovations in the field of tunnelling, spanning advancements in preventive deformation controlled principles, support techniques, informative construction, the application of new materials, and environmental protection measures.

3. Future Trends in Tunneling Technology: It explores the future directions of tunnelling technology, encompassing mechanization, digitization, and the implementation of green, low-carbon, and sustainable development principles.

This presentation aims to provide comprehensive insights into the tunnelling industry, helping to gain a thorough understanding of current industry dynamics and future development directions.

Charles Wang Wai Ng

Immediate Past President of ISSMGE

Prof. Charles W. W. Ng (吴宏伟) is the immediate past presidents of International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), the Vice-President of the Hong Kong University of Science and Technology (HKUST) in Guangzhou campus. He is also the Dean of HKUST Fok Ying Tung Graduate School, CLP Holdings Professor of Sustainability and a Chair Professor in the Department of Civil and Environmental Engineering at HKUST. Professor Ng is Fellow of the Royal Academy of Engineering and immediate Past President of the International Society for Soil Mechanics and Geotechnical Engineering (2017 – 2022).

Professor Ng earned his PhD degree from the University of Bristol, the UK in 1993. After carrying out post-doctoral research at the University of Cambridge between 1993 and 1995, he returned to Hong Kong and joined HKUST as Assistant Professor in 1995 and rose through the ranks to become Chair Professor in 2011.

As a world authority on unsaturated soil mechanics, eco-geotechnical engineering and landslides, Professor Ng is Changjiang Scholar (Chair Professorship in Geotechnical Engineering), Fellow of the Hong Kong Academy of Engineering Sciences, and Overseas Fellow of Churchill College, the University of Cambridge. He is also Fellow of the Institution of Civil Engineers, the American Society of Civil Engineers, and the Hong Kong Institution of Engineers. Currently, he is a co-Editor-in-Chief of the Canadian Geotechnical Journal.

Professor Ng has supervised more than 70 PhD and 60 MPhil students to graduation and has published some 400 SCI journal articles and 250 congress papers and delivered more than 100 keynotes and state-of-the-art reports across the six continents. He is the main author of three reference books: (i) A Short Course in Soil-structure Engineering of Deep Foundations, Excavations and Tunnels by Thomas Telford in 2004, (ii) Advanced Unsaturated Soil Mechanics and Engineering, and (iii) Plant-Soil slope Interaction by CRC: Taylor & Francis in 2007 and 2019, respectively.

He has received many awards including the 2022 Varnes Medal from the International Consortium of Landslides, the 2017 Telford Premium Prize from the Institution of Civil Engineers, and the R. M. Quigley Award from the Canadian.

Geotechnical Society three times for his three best papers published in 2007, 2012 & 2016. In China, he received the prestigious 2022 HLHL Scientific and Technological Advancement Award. He was also a recipient of the 2020 National Natural Science Award, the 2015 Scientific Technological Advancement Award by the State Council.

Impact Mechanisms and Rational Design of Debris Flow against Multiple Rigid Barriers

14:00-14:30, Sept. 22 | Crystal Hall

Abstract: Debris flows are catastrophic geological hazards occurring around the world in mountainous

regions, leaving trails of destruction along their paths. A common method to mitigate damages from large volumes of debris flows is to construct a large single reinforced concrete barrier at the end of the assumed flow channel. In contrast, erecting multiple rigid barriers with smaller sizes along the flow channel has emerged as an effective and environmentally friendly solution to progressively retain and decelerate large volumes of debris flow. This is because the construction of smaller multiple rigid barriers in steep terrains is not only more cost-effective and technically simpler but also reduces carbon footprint when compared to the construction of a large single reinforced concrete barrier. Despite these advantages, existing design criterion for multiple barriers is based on volume retention using barrier spacing only but neglects the effects of Froude number (Fr) during flow-barrier interactions. Since debris flows can occur with a wide range of Fr exhibiting different impact, overflow and landing mechanisms, neglecting these flow-barrier interactions can lead to uncertainty of barrier design. A rational design approach for multiple barriers should consider impact dynamics, overflow and landing mechanisms, as well as changes in flow kinematics prior to the impact on downstream barriers. Elucidating these complex mechanisms requires systematic investigation of flow-barrier interaction using well-controlled physical tests and numerical simulations. In this keynote, the impact mechanisms of debris flow against multiple rigid barriers are revealed and discussed from physical flume tests and numerical simulations. The physical flume tests are conducted in a 28-m-long flume to investigate the impact of 9 m3 debris flow against dual rigid barriers. Based on the calibration of the 28-m-long flume test, the numerical simulations are carried out for multiple rigid barriers using a fully coupled two-layer, two-phase material point method (MPM) with a flow volume up to 500 m3, which is a typical design volume adopted in Hong Kong. The effects of flow Fr and barrier spacing on the impact mechanisms of debris flow against multiple rigid barriers will be discussed. Finally, design recommendations for multiple rigid barriers will be illustrated.

Resat Ulusay

President of ISRM

Resat Ulusay, who was born in 1952 in Turkey, obtained BSc and MSc degrees on engineering geology from the Geological Engineering Department at Hacettepe University (H.U.) in 1975 and PhD degree from the Middle East Technical University (METU) in 1991, Ankara, Turkey, respectively.

His main research activities are concentrated on engineering geology, rock mechanics and soil mechanics; particularly on slope and waste pile stability, open pit slope design, laboratory and in-situ geomechanical testing, rock mass characterization and classification, geo-engineering at historical sites, geotechnical site investigations, earthquake-induced ground failures, attenuation relationships and swelling.

Between July 1975 and December 1995, he worked at the Mineral Research and Exploration Institute (MTA) of Turkey and was trained on mining geotechnology by Golder and Hoek Associates in UK and assigned to establish the 'Rock and Soil Mechanics Division and Laboratories' of MTA under the auspices of the United Nations. During this period, he was involved in a number of geotechnical projects as engineer, project manager, Division Chief and Deputy Head of the Department responsible from geotechnique. He became Associate Professor in 1994. Between December 1995 and 1st of SEPTEMBER 2019 he worked at the Applied Geology Division of the Geological Engineering Department at H.U.. He became full Professor in 2000 and also acted as a part-time instructor in METU between 1992 and 2015. He supervised 21 MSc and 13 PhD theses, and retired on 1st of SEPTEMBER 2019.

He is the author and/or co-author of more than 217 international and 87 national papers, four international book chapters, four technical books in Turkish on rock mechanics and geotechnics, two dictionaries on geo-engineering and rock mechanics, and the Co-editor and Editor of the ISRM Blue Book and Orange Book and proceeding of an ISRM symposium, respectively. He also acted as the Co-Editor-in-Chief of the 'Bulletin of Engineering Geology & the Environment' and the Ex-Officio Executive Committee Member of IAEG between January 2019 and 2021.

He is currently the ISRM President for the term 2019-2023. He is also the President of International Society for Rock Mechanics and Rock Engineering (ISRM) Commission on Testing Methods and member of ISRM Design Methodology Commission since 2006 and 2008, respectively. He presented '8th ISRM Online Lecture' and was awarded by ISRM as 'Lifetime ISRM Fellow' in 2015. '2016 Hans Cloos Medal' of IAEG was conferred to Prof. Ulusay for his contribution to the development of engineering geology. He also acted as the President of the Turkish Society of Engineering Geology and member of the Turkish National Earthquake Council and Earthquake Advisory Board. He gives master courses at Department of Resources and Civil Engineering of Northeastern University, Shenyang, China, and University of Ss. Cyril and Methodius, Department of Civil Engineering, Skopje, Macedonia, as Visiting Professor since 2018 and 2020, respectively.

Geo-engineering Aspects of the 6 February 2023 Devastating Kahramanmaraş Earthquakes of Turkey and Lessons Learned

14:30-15:00, Sept. 22 | Crystal Hall

Abstract: This paper includes the assessment of geo-engineering aspects of the doublet Pazarcık and Ekinözü earthquakes with moment magnitudes of 7.7 and 7.6, respectively. Both earthquakes occurred on 6 February 2023 at 4:17 and 13:24, respectively, in the southeast part of Turkey, affected 10 provinces and resulted in more than 50,000 causalities and heavy damages. In the reconnaissance study; measurements were taken and observations were carried out along the vicinity of the causative fault segments and on some buildings, some engineering structures and natural slopes, and grain size analyses of liquefied soils and accelaration records were assessed. The focal mechanisms of the both earthquakes indicated the characteristics of left lateral strike-slip fault with slight vertical component. A surface rupture with a total length of approximately 400km developed during these earthquakes as a result of the movement of some NE-SW and E-W trending segments of the East Anatolian Fault Zone. Strong motion records from the stations along the fault rupture and on the Arabian plate recorded much higher ground motions and duration of shaking was more than 70 seconds. Although the maximum ground accelerations in heavily affected cities were within the maximum ground acceleration assumed in the seismic design code of Turkey, the computed response spectra of some selected stations along the fault rupture zone were greatly exceeded the seismic design spectra of Turkey, and therefore, this issue should be reconsidered. Since large areas are covered by alluvial soils and groundwater table is shallow-seated in the earthquake region, wide-spread liquefaction occurred and lateral spreading on the shores of sea and lakes and banks of rivers were observed. But liquefaction was generally observed at non-residential areas and caused limited damages such as settlement, tilting and lateral displacements on some buildings, roads and a bridge along the shoreline in two towns and one village. Probably the liquefiable layer was quite thin and/or the cap soil was thick. Observations and measurements indicated that buildings having stories 2 or less were intact or slightly damaged and a maximum settlement of 200 cm due to liquefaction was observed at Gölbaşı. Furthermore, structural damage due to liquefaction-induced were quite limited despite similar buildings on firm ground were suffered heavy damage or collapses. In addition, the foundations of buildings experienced severe tilting were quite shallow and they were more than 5 stories. These earthquakes also resulted in wide-spread rock falls and giant landslides, one of them formed a landslide lake, along or in the close vicinity of the surface ruptures. Rock falls caused loss of life and some structural damage to built environments such as buildings, roadways, and railways. Example cases from the region demonstrated that particularly buildings with 1-2 storey are constructed according to the earthquake codes, the effect of surface ruptures on buildings are quite limited even the relative slip was more than 3 m, but linear structures, such as tunnels, roadways, railways anf etc. are damaged by surface ruptures. The causes of damage were almost the same as those seen in the previous earthquakes of Turkey.

Chungsik Yoo

President of FedIGS

Prof. Chungsik Yoo is currently Professor of Civil, Architectural Engineering and Landscape Architecture at Sungkyunkwan University (SKKU) in Korea. He is the current President of Federation of International GeoEngineering Societies (FedIGS) and Immediate Past President of Geosynthetics Society (IGS). Professor Yoo is also active in international tunneling community and has served as an Executive Council member of International Tunnelling and Underground Space Association (ITA). Professor Yoo obtained his MSc and Ph.D. degrees in Civil Engineering from the Pennsylvania State University in 1989 and 1993, respectively. After briefly working at Mueser Rutledge Consulting Engineers in USA as a Geotechnical Engineer, he returned to Korea and joined SKKU as Assistant Professor in 1994. Since then, Professor Yoo is continuing to serve as a professor at SKKU, and has served as Chair Professor of School of Civil and Architectural Engineering from 2014 to 2016 and as Vice Dean of College of Engineering from 2017 to 2018. Professor Yoo has co-authored over 500 technical papers, including SCI journal papers and congress papers, in geotechnical engineering and tunneling based on laboratory testing, numerical modeling, and field testing. He was a recipient of 2010 IGS Award from the International Geosynthetic Society (IGS). Professor Yoo also received many awards from the Korean Civil Engineering Society, Korean Geotechnical Society, Korean Tunnelling and Underground Space Association, and Korean Geosynthetics Society including Best Scientific and Engineering Paper Award from the Korean Federation of Science and Technology Societies in 2014. Currently, he is the Editor in Chief of Geotextiles and Geomembranes and an Associate Editor of Underground Space. He is also an Editorial Board Member of Geosynthetics International, Computers and Geotechnics, Tunnelling and Underground Space Technology.

Sustainable Infrastructure Development - Fundamentals and Global Challenges

15:00-15:30, Sept. 22 | Crystal Hall

Abstract: According to the 2021 Global Status Report for Buildings and Construction, buildings and construction together account for 36% of the total global energy use and 37% of energy-related carbon dioxide (CO_2) emissions. The construction industry thus has a huge responsibility to implement specific action plans to achieve sustainable construction targets. Bringing sustainability to the construction industry is a challenging task that relies significantly on innovative materials and design/construction technologies. Through innovation, the construction industry can transition from being part of the problem to become part of the solution. As the global population is expected to reach 8.5 billion people by the year 2030, preserving non-renewable resources is a top priority to ensure the planet's survival. Sustainable solutions in construction industries are needed to deliver infrastructure that supports a desired quality of life for current and future generations while con-serving resources and energy.

In this presentation, importance of sustainable infrastructure development is discussed in conjunction with climate change. A particular emphasis is placed on sustainable benefits of geosynthetics, which have become essential and regular construction materials that are be used to facilitate construction, ensure better short-term and long-term performance and reduce the long-term maintenance cost in routine civil engineering works. The sustainable benefits of geosynthetics are then discussed along with relevant case studies on transportation infrastructure development that demonstrate the potential of geosynthetics to significantly reduce carbon footprints compared to traditional solutions. Recent advances in geosynthetics applications on transportation/geotechnical infrastructure systems are introduced with emphasis on fundamentals and global challenges. Finally, the pathway forward regarding geosynthetics technology within the framework of sustainable infrastructure development is discussed.

Keynote Speakers

Nicola Casagli

President of ICL

Prof. Nicola Careceived the degree in geological science, the M.Sc. degree in engineering rock mechanics, and the Ph.D. degree in engineering geology from the Imperial College of London, UK. He is currently Professor of Engineering Geology at University of Florence, president of National Institute of Oceanography and Applied Geophysics (OGS), president of the Civil Protection Centre of University of Florence and president of the International Consortium on Landslides (ICL). He is an Expert of geological hazards and ground instability, monitoring technology, remote sensing, engineering geological characterization and modeling.

He was a member of the Major Risks National Committee of the Department of Civil Protection of the Italian Government and the World Center of Excellence on Landslide Risk Reduction of the International Program on Landslides. He was a Founder and an Associate of the UNESCO Chair on Prevention and Sustainable Mitigation of Geo-hydrological Hazards. He was an Adjunct Professor of the UNESCO Chair on Geoenvironmental Disaster Reduction at Shimane University (Japan). He was a member and former Vice President of the International Consortium on Geo-disaster Reduction (ICGdR). He was the Head of the Department of Earth Sciences and Past Member of the Academic Senate of the University of Florence. He was a Florence Ambassador. He is the author of more than 500 scientific publications and holder of 4 industrial patents. Prof. Nicola Casagli was Awarded with the Order of Merit of the Italian Republic (4th Class Officer).

Radar Technologies for Landslide Monitoring and Rapid Mapping

15:50-16:20, Sept. 22 | Crystal Hall

Abstract: Radar technologies provide accurate and timely information on ground motion and therefore play a key role in landslide monitoring and rapid mapping. The radar systems used for these purposes can be ground-based or space borne. Ground-based radar systems are deployed in front of landslide-prone areas to monitor and detect ground displacements with very high accuracy. In particular, Ground-Based Interferometric Synthetic Aperture Radars (GB-InSAR) provide high-resolution images of ground displacements over time and are particularly useful for monitoring slow-moving landslides, such as earth slides or earth flows. Doppler radars are ground-based devices used for continous monitoring of fast-moving landslides such as rockfalls or debris avalanches. They use the Doppler effect for the early detection of areas of incipient instability. Space borne radar systems are mounted on satellites orbiting the Earth and provide a broader perspective by covering larger areas. They deliver accurate measurements of ground motion using interferometry techniques and are particularly useful for monitoring on a regional scale. The advancement of Persistent Scatterers Interferometric Synthetic Aperture Radar (PS-InSAR) techniques and the free availability of satellite radar imagery by the European Space Agency (ESA) have led to the introduction of the European Ground Motion Service as part of the European Earth Observation program Copernicus. National coverages are also regularly produced in various countries. Radar systems can be operated remotely without entering an unstable area, and they operate independently of weather conditions, providing monitoring data even in rain, fog, and cloud cover. For these reasons, they are particularly useful for early warning systems and post-event consequence assessment. In addition, radar systems provide real-time or near-real-time data, enabling rapid emergency response.

In summary, radar technologies, whether ground- or space-based, are valuable tools for landslide monitoring and rapid mapping, and provide important information for disaster management and mitigation. Effective early warning systems at regional, national, or local levels can be based on the integration of remote sensing data from the various radar systems, in situ sensor networks, and weather forecasting routines.

Xuanmei Fan

Deputy Director of SKLGP

Prof. Xuanmei Fan is Deputy Director of the State Key Laboratory of Geohazard Prevention and Geoenvironment Protection (SKLGP), the Chengdu University of Technology, China. After obtaining her PhD in Engineering Geology from the Faculty of Geo-Information Science and Earth Observations (ITC), University of Twente in the Netherlands (2013), she joined SKLGP as a leading professor in Geohazard Risk Assessment and Prevention. She has carried out research on earthquake-induced chains of geological hazards, including coseismic landslide and landslide dam prediction, and spatio-temporal evolution, mechanism and early warning of post-earthquake landslides and debris flows. She is the Principal Investigator (PI) of many national and international projects, including a UK-China collaboration project and various European and NSFC projects. Her current research interest revolves around understanding the mechanisms and developing models to predict future risks of earthquake and climate change-induced hazard chains, especially in glacier-covered regions of the Tibetan Plateau. Throughout her career, she has published more than 140 ISI papers in prestigious journals such as Nature Geoscience, Reviews of Geophysics, GRL, and JGR. Due to her important scientific achievements, she has been awarded with many prizes, including the 'First Prize for National Science and Technology Achievements' in 2014; the Richard Wolters Prize by the International Association for Engineering Geology and the Environment (IAEG) in 2016; the Top Ten Female Geologists in China in 2017; the Outstanding Young Scholar Grant NSFC in 2021; the First Prize of Sichuan Natural Science Award in 2021; the Scientific Exploration Award in 2022.

Earthquake and Climate Change Induced Chains of Geological Hazards

16:20-16:50, Sept. 22 | Crystal Hall

Abstract: Strong earthquakes and extreme climatic events in steep orogens can induce cascading chains of surface processes with short- to long-term impacts on landscape. The presentation contains two parts, with the first part focusing on earthquake triggers. The chain of events begins with coseismic landslides, which can generate enormous quantities of debris over vast areas, by eroding soil and regolith as well as bedrock. Apart from the landslides directly connected to or dammed rivers, most of coseismic landslide deposits remain initially confined high on the slopes, which can be remobilised, even repeatedly, by hillslope erosion processes and debris flows after the earthquake. Long-term evaluations based on initial landslide abundance and sediment evacuation enable us to understand the changing mountain landscapes, and the survey pathways throughout an earthquake cycle. The second part of the presentation shifts its focus to the global climate change induced glacier-related cascading hazards in the Tibetan Plateau (TP). The Tibet Plateau (TP) is sensitive to climate change, resulting in complex geo-environmental changes and altered hydrological patterns. In recent years, rising environmental temperatures have led to growing numbers of geological hazards, posing significant threats and causing damage to the settlements, hydropower stations, and transportation infrastructures in this tectonically active region. However, the mechanisms behind these chains of geological hazards remain poorly understood. We will introduce five common types of cascading hazards (including ice-rock avalanches, GLOFs, glacier debris flows etc.) induced by climate change and explore their possible underlying mechanisms.

Yueping Yin

Chief Scientist

Prof. Yueping Yin received his PhD degree at the China Academy of Geosciences in 1990. He is the Chief Geologist of the China Institute of Geo-Environment Monitoring directly under China Geological Survey, and serves as a member of the Expert Steering Committee of the China National Commission for Disaster Reduction, the Chairperson of the Expert Committee of the China Association of Geo-Hazard Prevention, and the Deputy President of China Society of rock mechanics and Engineering. He had been elected as the President of International Consortium on Landslides under UNESCO and ISDR from 2014 to 2017, and is an associate editor of 《Landslides》 published by Springer.

Prof. Yueping Yin has conducted the researches on geological hazards and prevention since 1985. His research

interests cover landslide prevention for failure mechanism, dynamics, early warning, and stabilization. He has hosted national key research projects on landslide hazard assessment and prevention, especially, at the Three Gorge Reservoir, the Yangtze River.

Prof. Yueping Yin has published more than 200 academic papers. He was awarded for two of the National Prize of Science and Technology by the State Council. He is listed as one Highly Cited Chinese Researchers by Elsevier for years that his researches involved in Geo-risk mitigation at City and Mega Reservoir, etc.

Challenges and Strategies of Risk Mitigation on Catastrophic Landslides in China

16:50-17:20, Sept. 22 | Crystal Hall

Abstract: China is the country with the most complicated and serious geological disasters in the world. Through more than 20 years of efforts, a nation-wide reduction system including in the geological disaster investigation and evaluation, the monitoring and early warning, the emergency response and the comprehensive treatment system has been established. The number of deaths caused by geological disasters has significantly decreased, from 1500 deaths per year in the 1990s to about 100 deaths per year in recent years. This presentation first introduces about the national monitoring and risk early warning systems consisted of about 50,000 of landslides covering the whole country, including the hilly and mountainous areas in South China, the Loess Area in Northwest China, the Wenchuan Ms8.0 earthquake mountainous area and the high mountains and valleys of the Qinghai Tibet Plateau. Secondly, taking the Three Gorges Project area as an example, the presentation introduces the geological disasters and risk control techniques of the reservoir-induced landslide since the water storage and operation in 2008. Finally, the presentation introduces long-runout catastrophic geological disasters at high altitude that have occurred in the Western Alpine and canyon areas in China in recent years, and points out that because of their extreme destructive power on highway, railway and hydraulic power plants, they are the frontier key scientific and technological issues in the global geological disaster prevention and mitigation research. The disaster risk assessment method of catastrophic landslide and the secondary disaster chain is proposed.

Saturday, Sept. 23-Morning

Theme #08 Session #08

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Mechanism, Mitigation, and Risk Management of Geohazards Triggered by Extreme Weather Events

Venue: Crystal Hall 1 **Moderator: Xingmin Meng & Guan Chen**

Time	Paper ID	Speaker	Title
08:20-08:40	**B286**	**Xingmin Meng** **Invited**	**Landscape Dynamics and Geohazards in the Bailong River Corridor, China**
08:40-08:55	B115	Sanjeev Regmi	Slope Instability Assessment at the Upstream Section of Sunkoshi Hydropower Project
08:55-09:10	13	Aiguo Li	Comparison Study of Typical Landslides in Hong Kong and Shenzhen
09:10-09:25	B572	Yi Zhang	Activities and Kinematic Evolution of Large Landslides Along Fault Belt in the NE Qinghai-Tibet Plateau
09:25-09:40	B557	Chris Massey	Cyclone Gabrielle Landslides, New Zealand
09:40-09:55	B337	Qinghua Lei	Predicting Catastrophic Rock Slope Failures Via Dragon-King Detection
09:55-10:10	B268	Xiaojun Su	Updating Inventory, Deformation, and Development Characteristics of Landslides in Hunza Valley, NW Karakoram, Pakistan by SBAS-InSAR
10:10-10:25	B408	Jianhua Ma	Research on Preferential Infiltration in Rainfall-Induced Loess Landslide
	10:25-10:45	**Coffee Break**	

Theme #08 Session #13

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Advances in Modelling Rainfall-Induced Landslides

Venue: Crystal Hall 1 **Moderator: Aiguo Xing & Mingliang Zhou**

Time	Paper ID	Speaker	Title
10:45-11:05	**B6**	**Zizheng Guo** **Invited**	**FSLAM: A Fast Physically-Based Model for Rainfall-Induced Landslide Susceptibility Assessment and Its Application**
11:05-11:20	B158	Daijin Yu	The Unsaturated Seepage Process and Mechanism of Internal Interfaces in Loess-Filled Slopes During Intermittent Rainfall
11:20-11:35	B345	Peng Yu	Model Experiment and Numerical Simulation Study on Completely Weathered Granite Induced by Extreme Rainfall
11:35-11:50	B487	Diwakar Khadka	Geographic Object-Based Image Analysis for Landslide Identification Using Machine Learning on Google Earth Engine
11:50-12:05	B415	Daniel Camilo Roman Quintero	The Role of Suction Stress on Landslide Hazard Mapping in Pyroclastic Slopes of Campania (Italy)

Technical Schedule

Saturday, Sept. 23-Afternoon

Theme #08 Session #08

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Mechanism, Mitigation, and Risk Management of Geohazards Triggered by Extreme Weather Events

Venue: Crystal Hall 1 **Moderator: Tom Dijkstra & Yajun Li**

Time	Paper ID	Speaker	Title
13:20-13:40	**B354**	**Fanyu Zhang** **Invited**	**Moisture Migration on the Shear Zone Controlling Loess Landslide Failure Models**
13:40-14:00	**B669**	**Da Huang** **Invited**	**Performance and Application of the Novel Drainage Anti-Slide Piles on Reservoir-Induced Landslides**
14:00-14:15	728	Mian Sohal Akram	Mechanism and Structural Evidence of Interlayered Rock Slope Failures
14:15-14:30	B356	Zonglin Zhang	Assessment and Prediction of Soil Slope Stability and Failure Surface Location
14:30-14:45	651	Shuang Wang	Design and Application of a Flexible Enclosure for Seasonally Saline Frozen Areas in Airports
14:45-15:00	B430	Yuanxi Li	Automatic Mapping of Potential Landslides Using Satellite Multitemporal Interferometry
15:00-15:15	B302	Yangyang Li	Integration of Unsaturated Soil Mechanics into Slope Susceptibility Mapping
15:15-15:30	B454	Te Xiao	Machine Learning-Powered Spatio-Temporal Landslide Forecasting
15:30-15:45	B395	Kristine Jarsve	A Conceptual Debris Flow Model for the Zhouqu Area of the Bailong River Basin

Theme #08 Seesion #08

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Mechanism, Mitigation, and Risk Management of Geohazards Triggered by Extreme Weather Events

Venue: Crystal Hall 1 **Moderator: Janus Wosawski & Runqiang Zeng**

Time	Paper ID	Speaker	Title
15:50-16:10	**B699**	**Huili Chen** **Invited**	**Fit-for-Purpose High-Resolution Risk Assessment and Forecasting System for Rainfall-Induced Hazards in Bhutan**
16:10-16:25	B628	Shin-Ping Lee	Large Scale Sediment Transportation Induced by Long Duration Rainfall
16:25-16:40	B560	Guan Chen	Experimental Field Study on the Formation Process of Debris Flow Dam at Channel Confluence: Implications for Early Identification of River Blockage
16:40-16:55	366	Jian Huang	A New Simulation Tool on Rockfall Fragmentation-Movement-Deposition Process
16:55-17:10	B545	Yajun Li	Comparison of Debris Flow Activities at Two Different Tributaries of the Bailong River
17:10-17:25	B483	Wangcai Liu	Forecast Volume of Potential Landslides in Alpine-Canyon Terrain Using Time-Series InSAR Technology: A Case Study in the Bailong River Basin, China
17:25-17:40	B791	Chaoxu Guo	The Application of Ultra Light Dynamic Cone Penetration Test in Shallow Landslide
17:40-17:55	B610	Jiacheng Jin	The Influence of Tectonic Processes on the Formation and Characteristics of Landslide Dams on the NE Tibet Plateau: A Case Study in the Bailong River Basin, China

Saturday, Sept. 23-Morning

Theme #01 Session #02

Engineering Geomechanics of Rock and Soil Masses

>Structure of Soil and Rock Mass

Venue: Crystal Hall 2 **Moderator: Shengwen Qi & Haris Saroglou**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**567**	**Songfeng Guo** **Invited**	**The Classification Methods of Anisotropic Rock Mass and Applications**
08:40-09:00	**B144**	**Weiwei Zhu** **Invited**	**Advancements in Investigating Complex Subsurface Fracture Networks with the Discrete Fracture Network Method**
09:00-09:15	683	Violetta Shanina	Ways to Improve the Accuracy of Determining the Preconsolidation Pressure
09:15-09:30	B211	Yifeng Zhao	Reconstruction and Generation of 3D Realistic Soil Particles with Metaball Descriptor
09:30-09:45	B360	Xiaopeng Zhou	An Improved DBSCAN Clustering Algorithm for the Identification of Rock Discontinuity Sets from 3D Point Cloud
09:45-10:00	B467	Xiaochan Wang	Research on the Deformation Characteristics and Constitutive Model with Local Damage Law for Granular Materials
10:00-10:15	B15	Jiaxin Zhang	Effect of Grain Roughness on Permeability and Electrical Conductivity of Porous Rock Under Mineral Dissolution
10:15-10:30	172	Wenlian Zhang	Stability Prediction of Rock Slope Based on Fuzzy Clustering GA-FNN Model
10:30-10:45			**Coffee Break**

Theme #01 Session #07

Engineering Geomechanics of Rock and Soil Masses

> Multiphase Flow and Geomechanics in CO_2 Geological Sequestration

Venue: Crystal Hall 2 **Moderator: Xiaoguang Wang & Dongsheng Wu**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B872**	**Chaozhong Qin** **Invited**	**Limiting Pathways and BreakThrough Pressure for CO_2 Flow in Mudstones**
11:05-11:20	B548	Zhonghao Sun	Examining Surface Roughness Effects on Subpore-Scale Trapping Mechanisms in Porous Media via Microfluidics
11:20-11:35	B829	Zan Wang	Inferring CO_2 Saturation from Synthetic Surface Seismic and Downhole Monitoring Data Using Machine Learning for Leakage Detection at CO_2 Sequestration Sites
11:35-11:50	B792	Chenxing Zhou	Experimental Study of Dissolution Regimes in Multiphase Flow Environment with Real-Rock Microfluidics
11:50-12:05	B649	Yunfei Li	Experimental and Modeling Investigation of CO_2 Solubility in Brine at In-Situ Conditions for Geological Carbon Storage

Technical Schedule

Saturday, Sept. 23-Afternoon

Theme #01 Session #02

Engineering Geomechanics of Rock and Soil Masses

>Structure of Soil and Rock Mass

Venue: Crystal Hall 2 **Moderator: Wen Zhang & Tang Liang**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B890**	**Wen Fan** **Invited**	**3D Loess Microstructure: Perceive the Subtle to Understand the Profound**
13:40-14:00	**B876**	**Wen Zhang** **Invited**	**Multi-Source Recognition and Automatic Interpretation for Rock Mass Structures**
14:00-14:15	184	Guobin Gong	DEM Simulations of Critical State Behavior of Sand Under Triaxial Compression and Extension
14:15-14:30	B653	Beixiu Huang	Rapid Determination of the Brittleness of Shale Based on Conversion Models from Elements to Mineral Compositions
14:30-14:45	B421	Yongfeng Zhu	Modeling Distribution and Evolution of Loess Pore Structure by Two-Dimensional Distinct Element Method Analyses
14:45-15:00	B70	Tingchang Yin	Finite-Size Scaling for the Connectivity and Permeability of Discrete Fracture Networks
15:00-15:15	57	Thian Lai Goh	An Alternative Approach to Rock Mass Rating, RMR Determination from Geological Strength Index, GSI for Limestone Rock Mass, Ipoh, Perak, Malaysia
15:15-15:30	B824	Jingkai Qu	Study on the Geological Characteristics of the Red Beds in the Yun-Gui Section of the Chongqing-Kunming High-Speed Railway
15:30-15:50			**Coffee Break**

Theme #01 Session #02

Engineering Geomechanics of Rock and Soil Masses

>Structure of Soil and Rock Mass

Venue: Crystal Hall 2 **Moderator: Lihui Li & Jun Zheng**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**448**	**Gianvito Scaringi** **Invited**	**Thermal and Shear-Rate Effects in Landslides: from the Classics to the Future**
16:10-16:30	**B241**	**Xiaolin Huang** **Invited**	**Effect of the Crystal Habit on Micromechanical Extensile Behaviors of the Crystalline Rock During Compression**
16:30-16:45	B270	Tao Xiao	Relationship Between Water Retention Capacity and Pore-Size Distribution of Compacted Loess
16:45-17:00	B422	Yanyan Zhou	Investigating Strain Localization in Malan Loess Under Mini-Triaxial Shearing Using X-Ray Micro Tomography
17:00-17:15	B564	Weina Yuan	Microstructure Characteristics of Loess and their Effects on Shear Behavior
17:15-17:30	B90	Tuo Lu	A New Method to Determine the Segmentation of Pore Structure and Permeability Prediction of Loess Based on Fractal Analysis
17:30-17:45	614	Kaleem Ullah Jan Khan	Experimental Study on Meso-Mechanical Behavior of Coarse-grained Granular Soils
17:45-18:00	280	Cheng Zhao	Applications of Hydro-Mechanical Phase Field Model: from Laboratory Scale to Natural Fracture Networks

Saturday, Sept. 23-Morning

Theme #09 Session #01

Technological Innovation in Engineering Geology (3rd Shaoxing International Forum)

>Advanced Monitoring Technologies for Geoengineering

Venue: Crystal Hall 3 **Moderator: Kai Gu & Daoyuan Tan**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B891**	**Chao Zhou** **Invited**	**Evaluation of Loess Collapsibility Based on a Simple Elastoplastic Model and In-Situ Time-Domain Reflectometry Tests**
08:40-09:00	**B892**	**Dongsheng Xu** **Invited**	**Recent Development of Advanced Monitoring Technologies in Coral Reef Engineering**
09:00-09:15	B641	Jiewei Zhan	Characterization of Pre- and Post-Failure Deformation and Evolution of the Shanyang Landslides Using Multi-Temporal Remote Sensing Data
09:15-09:30	98	Yongxiu Zhou	A Novel Remote Sensing Landslide Semantic Segmentation Method: Using Cyclegan- Based Change Detection Algorithms
09:30-09:45	B844	Hui Hu	The Application of Visual Deformation Monitoring Techniques in Geological Hazards Monitoring and Early Warning
09:45-10:00	B472	Linan Liu	Investigate Tunneling-Induced Ground Subsidence Using Integrated InSAR and Machine Learning Techniques
10:00-10:15	401	Haoyu Mao	Safety Intelligent Control Platform of Deep-Buried Tunnel Based on Multivariate Monitoring Information
10:15-10:45			**Coffee Break**

Theme #09 Session #01

Technological Innovation in Engineering Geology (3rd Shaoxing International Forum)

>Advanced Monitoring Technologies for Geoengineering

Venue: Crystal Hall 3 **Moderator: Andy Y.F. Leung & Dongsheng Xu**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B447**	**Honghu Zhu** **Invited**	**Multi-Physical Landslide Monitoring with a Fiber-Optic Nerve System**
11:05-11:25	**B460**	**Daoyuan Tan** **Invited**	**A Novel Method for Integrity Assessment of Soil-Nailing Works with Actively Heated Fiber Optic Sensors**
11:25-11:40	251	Kai Gu	Groundwater Flow Characterization in Strata of Loose Sediments Using Actively Heated Fiber Optics Based Thermal Response Test
11:40-11:55	B756	Abd Ullah	Investigation of Concrete-Steel Interaction in Composite Member via Distributed Fibre Optic Sensor Technology
11:55-12:10	B929	Kai Zhou	Secured Drapery System: Tests, Design Principals and Experiences

Technical Schedule

Saturday, Sept. 23-Afternoon

Theme #09 Session #03

Technological Innovation in Engineering Geology (3rd Shaoxing International Forum)

>New Laboratory Techniques and Their Applications in Engineering Geology

Venue: Crystal Hall 3 **Moderator: Sangho Cho & Kaiwen Xia**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B779**	**Arindam Basu** **Invited**	**Evaluating Shear Behavior of 'Real' Natural Rock Discontinuities**
13:40-14:00	**B828**	**Shengwen Qi** **Invited**	**A New Dynamic Direct Shear Apparatus for Discontinuities**
14:00-14:20	**B445**	**Louis Wong** **Invited**	**A Computational Algorithm for Calculating Fracture Index of Core Runs**
14:20-14:35	B831	Rui Kong	Test Apparatus and Technology to Determine Complete Stress-Strain Process for Hard Rocks Under True Triaxial Stress Path
14:35-14:50	B647	Shuang Yang	Stress-Dependent Wave Propagation in Dry Sandstones Considering Void Compaction Under Uniaxial Load
14:50-15:05	407	Hani Meree	A Numerical Study on the Performance of Traditional Concrete and Three-Dimensional Printed Concrete Dams Under the Boulder Impact
15:05-15:20	321	Yong Chen	Thermal Properties of Phase Change Material Incorporated Subgrade Clay
15:20-15:35	B437	Rong Jiang	Mechanical Properties and Reinforcement Mechanism of Nano-Ferric Oxide Solidified Loess
15:35-15:50			**Coffee Break**

Theme #09 Session #03

Technological Innovation in Engineering Geology (3rd Shaoxing International Forum)

>New Laboratory Techniques and Their Applications in Engineering Geology

Venue: Crystal Hall 3 **Moderator: Arindam Basu**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**B495**	**Jia-Jyun Dong** **Invited**	**Laboratory Measurement of Fluid Storage and Migration Parameters of Intact Rocks and Rock Joints**
16:10-16:30	**B192**	**Kaiwen Xia** **Invited**	**Laboratory Earthquakes Decipher Control and Stability of Rupture Speeds**
16:30-16:50	**B499**	**Cho Sang Ho** **Invited**	**Dynamic Direct Shear Tests of Jointed Rock Using Compact CNS Direct Shear Box**
16:50-17:05	B719	Jie Wu	Rock Mechanical Portable Laboratory System
17:05-17:20	B450	Hua Li	Comparison of High-Frequency Components in Acoustic Emissions from Rock Fracture Under Mode Ⅰ and Mode Ⅱ Dominated Loading
17:20-17:35	344	Mingliang Zhou	An ANN-Based Constitutive Model for Interbedded Hydrate-Bearing Sediments
17:35-17:50	629	Zexu Ning	Assessment of Similarity for Rock-like Material Prepared by 3D Printing Technology
17:50-18:05	B434	Wei Yao	Experimental Apparatus for Observing Full Friction Process Using Hopkinson Torsion Bar

Saturday, Sept. 23-Morning

Theme #08 Session #14

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

> Landslide Dams: Formation, Stability, Breaching and Risk Management

Venue: Crystal Hall 4 **Moderator: Lu Jing & Xi Xiong**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B378**	**Xi Xiong** **Invited**	**Modelling Hydraulic-Mechanical Behavior of Unsaturated Landslide Dam Materials and Its Application in FEM Simulations of Flume Tests**
08:40-09:00	**B519**	**Lu Jing** **Invited**	**A General Grain Segregation Model for Enhanced Prediction of Heterogeneous Granular Landslide Deposition**
09:00-09:15	B539	Regine Morgenstern	Assessing Landslide Dam Hazards in Aotearoa New Zealand: A Data Driven Approach
09:15-09:30	B279	Jiawen Zhou	Physical and Numerical Modeling for Breaching and Flood Routing Processes of Landslide Dams
09:30-09:45	B569	Gang Fan	Mechanism and Simulation Method of Landslide Dam Overtopping Failure —— Based on Large-Scale Field Experiments
09:45-10:00	B634	Jiacheng Xia	Experimental Study on Diversion Channel Disposal of Landslide Dams Via Connected Gravel Geotextile Bags
10:00-10:15	B504	Wenjun Lu	Centrifuge Study of Glacial Debris Flow
10:15-10:45			**Coffee Break**

Theme #08 Session #05

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Research on Disaster Prevention and Environmental Protection in Japan

Venue: Crystal Hall 4 **Moderator: Guichen Ma & Qinxue Wang**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**633**	**Nobusuke Hasegawa** **Invited**	**A Study on the Relationship Between Building Damage and Shallow Subsurface Ground in the 2015 Nepal Gorkha Earthquake**
11:05-11:20	659	Guichen Ma	Study on Rockfall Simulation Method Using Discontinuous Deformation Analysis
11:20-11:35	688	Qinxue Wang	Investigating Challenges and Countermeasures for the Yoshino River Environment in Japan
11:35-11:50	689	Jingcai Jiang	Estimation of Slip Surfaces Using the Results of Groundwater Logging in Fracture Zone Landslides

Technical Schedule

Saturday, Sept. 23-Afternoon

Theme #08 Session #12

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Advances in Disaster Reduction of Large Landslides: Activities of JTC1 and iRALL

Venue: Crystal Hall 4 **Moderator: Chris Massey**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B732**	**Chris Massey** **Invited**	**A Prototype Earthquake-Induced Landslide Forecast Tool for New Zealand**
13:40-13:55	422	Marco Loche	Landslide Susceptibility in the Turkish Northwesternmost Sector: Distinctive Patterns of Inactive and Active Landslides
13:55-14:10	429	Luca Lervolino	Wildfire Effects on Sloping Pyroclastic Covers: An Experimental Study
14:10-14:25	B664	Gonghui Wang	JTC1-Natural Slopes and Landslides: Its Activities and Achievements
14:25-14:40	345	Kurosch Thuro	Determination of Crucial Shear Parameters in Highly Landslide Prone Tropical Soils in Bello Oriente, Medellín, Colombia
14:40-14:55	269	Wenbing Shi	Movement Process Analysis of Long-Runout Guanling Landslide in Guizhou, China
14:55-15:10	323	Depan Hu	A Case Study of Automatically Monitoring System Experiment for Landslide within Tianfu New District in Chengdu
15:10-15:25	445	Muhammad Hasan	Determining the Geotechnical Parameters of Rock Mass via Non-invasive Geophysical Methods
15:25-15:50			**Coffee Break**

Theme #08 Session #12

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Advances in Disaster Reduction of Large Landslides: Activities of JTC1 and iRALL

Venue: Crystal Hall 4 **Moderator: Alexander Strom**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**358**	**Thad Wasklewicz** **Invited**	**Post-Wildfire Landslide Engineering: Hazard Assessment to Mitigation Solution for Areas in the Cameron Peak Wildfire, Colorado, USA**
16:10-16:25	438	Chengcheng Zhang	Evaluating Dark Fiber Distributed Acoustic and Strain Sensing for Shallow Ground Movement Monitoring: A Field Trial
16:25-16:40	541	Qing Lü	A Practical Method to Predict the Occurrence Time of Storm-Induced Shallow Landslide Considering the Underlying Impermeable Bedrock
16:40-16:55	547	Ning Bao	Estimation of Seismic Earth Pressure Acting on Stabilizing Piles in Sandy Slopes Considering Soil Arching Effect
16:55-17:10	557	Xiaoyi Fan	Experimental Investigation on Impact Force of Dry Granular Flows on A Rigid Retaining Wall
17:10-17:25	B431	Chu Xu	Field Monitoring and Kinematic Behavior of a Multi-Sliding Zones Landslide in the Three Gorges Reservoir Area
17:25-17:40	B525	Langping Li	Path-Dependent Landslide Geometry Analysis
17:40-17:55	229	Xinyan Peng	Various Applications of Developed DDA-SPH Method to Coupling Problems involved in Geological Disasters

Saturday, Sept. 23-Morning

Theme #04 Session #04

Geoenvironmental Engineering and Ecological Solutions

>Expansive Soil/Clay and Its Environmental Effects

Venue: Crystal Hall 5 **Moderator: Yonggui Chen & Qiong Wang**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B893**	**Weimin Ye** **Invited**	**An Infiltration Model for Inclined Covers Considering Capillary Barrier Effects**
08:40-09:00	**B894**	**Anthony Leung** **Invited**	**Vegetation as a Nature-Based Solution for Slope Stabilisation: Recent Advances**
09:00-09:15	474	Yuhong Meng	Dynamic Evolution of Hydration Cracks Upon Bentonite Self-Sealing with Technological Voids
09:15-09:30	563	Xusheng Yan	Effect of Groundwater Salinity on the Hydro-Mechanical Behavior of Compacted Bentonite
09:30-09:45	B589	Huaxiang Yan	Mechanistic Modelling of Piping and Erosion of Swelling Clays
09:45-10:00	692	Yonggang Zhang	Dynamic Strength Degradation Prediction Research of Foamed Lightweight Soil Under Chemical Erosion and Wet-Dry Cycle
10:00-10:15	B718	Zhifei Hu	Ion Adsorption on the Surface of Montmorillonite and the Control of the Size of the Nanochannel
10:15-10:30	123	Dongyue Pan	Temperature Effect on the Deformation Behavior of Compacted Bentonite Under Free Swellingrinkage Conditions
10:30-10:45			**Coffee Break**

Theme #04 Session #04

Geoenvironmental Engineering and Ecological Solutions

>Expansive Soil/Clay and Its Environmental Effects

Venue: Crystal Hall 5 **Moderator: Long Xu & Yong He**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B895**	**Qiong Wang** **Invited**	**Experimental Evidence on the Cracking and Sealing Mechanisms of Compacted Bentonite**
11:05-11:20	163	Yihe Xu	Volumetric Behavior of Compacted Stiff Clay Subjected to Wetting and Drying Cycles
11:20-11:35	209	Nan Wang	Expansive Soil Treatment with Powder-Form Polymer Soil Stabilizer
11:35-11:50	162	Qian Zhang	Mechanical Behavior of EICP-Treated Calcareous Sands at High Stress Levels
11:50-12:05	627	Dapeng Deng	Simulation and Prediction of Soil Erosion in Typical Karst Rocky Desertification Area Based on SWAT Model

Technical Schedule

Saturday, Sept. 23-Afternoon

Theme #04 Session #01

Geoenvironmental Engineering and Ecological Solutions

>Biological and Ecological Geoenvironmental Engineering

Venue: Crystal Hall 5 **Moderator: Yongfeng Deng & Qing Cheng**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B896**	**Chaosheng Tang** **Invited**	**Bio-Geoengineering Technology and the Applications**
13:40-14:00	**B897**	**Ningjun Jiang** **Invited**	**Bio-Stimulated Micp for the Heavy Metal Immobilization**
14:00-14:15	B452	Yijie Wang	Role of Biochar in Improving Biostimulated MICP: Shear Strength Enhancement and Ammonium Removal
14:15-14:30	B424	Chunhui Chen	Effect of Biopolymers on Soil Geotechnical Properties and Their Possible Engineering Application
14:30-14:45	B335	Chuangji Lin	A Displacement Back-Analysis Method for Soil Constitutive Model Parameters Based on Pressuremeter Test – Illustrated with Shanghai Clays
14:45-15:00	B94	Qi Zhang	Numerical Investigation of Three-Dimensional Vegetated Slope Stability Under Single- and Mixed-planting Conditions
15:00-15:15	B343	Lingxiang Wang	A Darcy-Scale Numerical Model for Microbially Induced Calcite Precipitation Modeling in Heterogeneous Porous Media
15:15-15:30	B898	Jinquan Shi	Anisotropic Small Strain Stiffness of Lightly Biocemented Sand Considering Grain Morphology
15:30-15:50			**Coffee Break**

Theme #04 Session #01

Geoenvironmental Engineering and Ecological Solutions

>Biological and Ecological Geoenvironmental Engineering

Venue: Crystal Hall 5 **Moderator: Liangtong Zhan & Ningjun Jiang**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**B899**	**Junjun Ni** **Invited**	**Vegetation Effects on Water and Gas Migration in Unsaturated Soils: Theory and Application**
16:10-16:30	**B14**	**Qing Cheng** **Invited**	**Tension-Healing Mechanism of Desiccation Cracks in a Clayey Soil**
16:30-16:45	B388	Xiaohua Pan	An Efficient Bio-Sealing of Rock Weathering Cracks Using Microbial Induced Magnesia Carbonation
16:45-17:00	B63	Haowen Guo	Effects of Soil-Plant-Biochar Interactions on the Performance of Landfill Cover System
17:00-17:15	B230	Yuchen Wang	Effects of Elevated Atmospheric CO_2 on Soil-Microbe-Plant System Under Biochar Treatment
17:15-17:30	B340	Yajie Chu	Pore-Scale Modeling Microbially Induced Calcium Carbonate Precipitation Process
17:30-17:45	B582	Qiao Wang	Multicomponent Gases (CH_4/CO_2/C_6H_6) Diffusion and Adsorption in Unsaturated Bentonite: A Molecular Insight

Saturday, Sept. 23-Morning

Theme #06 Session #01

Marine Engineering Geology, Marine Geo-Environment and Disasters -3rd International Symposium on Marine Engineering Geology (ISMEG 2023)>Geophysical Techniques and Methodological Advances for Marine Engineering Geology, Marine Geoenvironment and Disasters

Venue: Crystal Hall 6 **Moderator: Yin Wang & Zhihui Zou**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B309**	**Yanliang Pei** **Invited**	**Design and Implementation of a Deep-Towed High-Resolution Multichannel Seismic System: Kuiyang St2000**
08:40-09:00	**B251**	**Bryan Bergkamp** **Invited**	**Recent Advances and Best Practices for Engineering Oriented Marine Geohazards Assessment**
09:00-09:15	B750	Lejun Liu	Sustainable Development and Utilization on Island and Coast Zone
09:15-09:30	B763	Chao Zhong	Research on Design and Application of Shipborne Air-Sea Methane Exchange Flux Measurement System
09:30-09:45	B458	Zhihui Zou	High-Resolution Wave Impedance Inversion Method for Offshore Freshened Groundwater Based on Combination of Tomography and Minimum Entropy Deconvolution
09:45-10:00	B643	Furong Ji	Marine Controlled-Source Electromagnetic Inversion Constrained by Well Logging and Seismic Data
10:00-10:15	B429	Yixiao Luan	Analysis and Prediction of Suction Caisson Uplift Capacity Based on ISM and DNN
10:15-10:30	B17	Bowen Li	In Situ Monitoring of Water Quality in the Polymetallic Nodules Depositional Area in the Western Pacific
10:30-10:45			**Coffee Break**

Theme #06 Session #01

Marine Engineering Geology, Marine Geo-Environment and Disasters -3rd International Symposium on Marine Engineering Geology (ISMEG 2023)>Geophysical Techniques and Methodological Advances for Marine Engineering Geology, Marine Geoenvironment and Disasters

Venue: Crystal Hall 6 **Moderator: Lele Zhang & Yubin Ren**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B417**	**Vicki Moon** **Invited**	**Tephra Seismites: Using Soft Sediment Deformation Structures to Unravel Seismic History**
11:05-11:20	486	Lingxu Li	Improvement Effect and Mechanical Model of Submarine Silt Stabilized by GS Agent
11:20-11:35	B619	Zening Zhao	Reliability Identification of Subsurface Shallow Gas Based on Resistivity Piezocone Penetration Tests
11:35-11:50	B626	Yanyan Lu	Marine Magnetotelluric Inversion Based on Velocity Constrained and Deep Learning
11:50-12:05	B428	Yefeng Yang	A CFD-DEM Coupling Approach Considering Topological and Gaussian Curvature Effects in Non-Spherical Particles

Technical Schedule

Saturday, Sept. 23-Afternoon

Theme #02 Session #01

Climate Change and Sustainable Development

>Extreme Climate, Soil and Water Conservation, and Sustainable Development in Semiarid Regions

Venue: Crystal Hall 6 **Moderator: Zhao Jin & Yurui Li**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B900**	**Li Guo Invited**	**Updating Probable Maximum Precipitation for Hong Kong Under Intensifying Extreme Precipitation Events**
13:40-14:00	**95**	**A.T.M.Shakhawat Hossain Invited**	**The Hidden Geo-Hazards in the Rohingya Refugee Camps of Ukhia, Cox's Bazar, Bangladesh —— A Threat for Sustainable Development**
14:00-14:15	B19	Tom Dijkstra	A Conceptual Model for the Weather-Induced Deterioration of Transport Infrastructure Earthworks
14:15-14:30	B226	Jidong Teng	An Analytical Method for Assessing Frost Heave Susceptibility of Frozen Soils
14:30-14:45	B930	Yurui Li	Gully Land Consolidation and Rural Sustainable Development in the Loess Plateau
14:45-15:00	B109	Rahman Khalil Ur	Monitoring the Real-time Depletion of Groundwater Using Grace Satellite and Smart IoT-Based Groundwater Monitoring System
15:00-15:15	B46	Fansheng Kong	Effects of Freeze-Thaw Cycles on the Erodibility and Microstructure of Soda-Saline Loessal Soil in Northeastern China
15:15-15:30	413	Shuangxi Feng	Study of Tunnel-Soil Interaction Under Seismic Excitation and a Simplified Earth Pressure Calculation Method for Tunnel Structure in Soft Soil Area
15:30-15:50			**Coffee Break**

Theme #02 Session #02

Climate Change and Sustainable Development

>Cryospheric Changes and Sustainable Development

Venue: Crystal Hall 6 **Moderator: Yanhu Mu & Tonghua Wu**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**B901**	**Tonghua Wu Invited**	**Permafrost Changes and the Engineering Risk Assessment on the Qinghai-Tibet Plateau**
16:10-16:30	**B902**	**Huayang Lei Invited**	**Analysis of Reinforcement Effect and Influencing Factors of Soft Ground Treated by Prefabricated Radiant Drain Vacuum Preloading Technology**
16:30-16:45	B212	Donghui Shangguan	Cryospheric Changes and their Effects in the Upper Reaches of Yangtze River
16:45-17:00	B583	Yanjun Che	Proglacial Lake Expansion due to Glacier Shrinking: A Case Study of the Midui Glacier in the Southeast Region of Qinghai-Tibet Plateau
17:00-17:15	B210	Zhenqi Sun	Watershed Water Policy Based on a Glacier Water Service Perspective in the Typical Glacier Basins, Western China
17:15-17:30	B532	Fujun Niu	Risk Assessment of Engineering Diseases of Embankment–Bridge Transition Section Along the Qinghai–Tibet Railway in Permafrost Regions
17:30-17:45	B608	Zekun Ding	The Outburst of a Lake and Its Impacts on Redistribution of Surface Water Bodies and Permafrost Thermal Regime on Tibet Plateau
17:45-18:00	B681	Bo Zhang	Debris Flow Occurred at Yigong on 21 July 2022 and Its Meteorological Background

Saturday, Sept. 23-Morning

Theme #11 Session #01

Preservation of Cultural Heritage and Engineering Geology

>Investigation, Design, and Monitoring of Cultural Heritage

Venue: Wuhou Hall **Moderator: Wenwu Chen & Pulin Cao**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**587**	**Qinglin Guo** **Invited**	**Simulation Experiment Study on Large-Size Sandstone Weathering Under Coupling Effect of Rainfall, Temperature and Sunlight**
08:40-09:00	**598**	**Pulin Cao** **Invited**	**A Study on Deformation of the Meridian Gate's Platform in the Forbidden City Based on Long-Term Monitoring Data**
09:00-09:15	85	Yu Li	Love-Wave Full Waveform Inversion in the Time Domain: Case Study of Ancient Tomb Prospecting
09:15-09:30	170	Deshan Cui	Microscopic Mechanism of Water and Salt Migration in the Great Wall Soil of the Ming Dynasty Under Freeze-Thaw Cycles
09:30-09:45	556	Hongsong Li	Study on the Diseases Classification and Definition of Grottoes and Rock Carvings
09:45-10:00	597	Tao Peng	A Study on the Survey of Water Seepage Damage of Tongnan Great Buddha
10:00-10:15	45	Pulin Cao	Study on Deformation Forecasting Method for Heritage Buildings Based on AR and Deep Learning Models
10:15-10:30	601	Fei Qi	Research on the Detection Method of Ancient Drainage System in the Palace Museum
10:30-10:45			**Coffee Break**

Theme #05 Session #02

Active Tectonics, Geomorphology and Geological Hazards

>Active Faults and Earthquake Chained Hazard Zonation

Venue: Wuhou Hall **Moderator: Ziyue Wang & Qingli Zeng**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B134**	**Qingli Zeng** **Invited**	**Dating, Seismic Origin of Large Paleolandslides and Implications on Active Faults**
11:05-11:20	B148	Ziyue Wang	Accessibility Analysis of Emergency Shelters Considering Fault Rupture and Strong Ground Motion in Xichang City
11:20-11:35	B414	Tao Wang	A Case Study on Improvement of Newmark Displacement Model and Verification of Seismic Landslide Hazard Assessment, Southwest China
11:35-11:50	317	Mohammad Feruj Alam	3.8 Magnitude Earthquake in Sylhet Area, Bangladesh-A Case Study of School Building Damage

Technical Schedule

Saturday, Sept. 23-Afternoon

Theme #11 Session #02

Preservation of Cultural Heritage and Engineering Geology

> Material, Environment, and Digital Preservation of Cultural Heritage

Venue: Wuhou Hall **Moderator: Qiangqiang Pei & Junlian Li**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**581**	**Haiyu Wu** **Invited**	**Numerical Simulation of Sand Dune Accumulation at Suoyang Ancient City**
13:40-14:00	**584**	**Junlian Li** **Invited**	**Composition and Structure Analysis of Xi'an Drum Tower Foundation**
14:00-14:15	573	Haoxin Chen	Study on the Characteristic and Influencing Factor of the Upper Erosion of the Ming Great Wall in Gansu Province, China
14:15-14:30	575	Jianxin Hua	Presentation of Engineering Geological Achievements in Digital Protection Project of Ancient Building Complexes in Gubeikou Village
14:30-14:45	579	Qian Xia	Effects of Environmental Relative Humidity on Water and Salt Transport in Soil Columns
14:45-15:00	552	Pengfei Chen	Analysis on the Stability of No. 66 Enemy Station of the Ming Great Wall in Yanqing, Beijing
15:00-15:50			**Coffee Break**

Theme #11 Session #03

Preservation of Cultural Heritage and Engineering Geology

>Engineering Geology in Preservation and Protection of Heritage Sites, Stone Resources, and Geo-Heritage

Venue: Wuhou Hall **Moderator: Vinod Sharma & Yi Wang**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**6**	**Daria Shubina** **Invited**	**Modern Landslide Activity and Slope Stability Analycis on the Site "Oreand" (Southern Slope of the Crimean Mountains)**
16:10-16:30	**B565**	**Yi Wang** **Invited**	**Study on Prevention and Control Measures of Groundwater Seepage Disease in Leshan Giant Buddha Based on Seepage Mode Analysis**
16:30-16:45	526	Vinod Sharma	Disaster Risk Reduction Around a Heritage Temple Complex in Garhwal Himalaya
16:45-17:00	B45	Oyelami Charles Adebayo	Evaluation of Three Geosites within Ilesha Schist Belt Southwest Nigeria as a Potential Geoheritage Site for Sustainable Regional Development
17:00-17:15	577	Peiran Liu	Effect of Reservoir Construction on Weathering Characteristics of the Cliff at Bingling Temple Grottoes
17:15-17:30	B74	Yumin Du	Quantitative Research on the Development Difference of Scaling off on the Sunward Side and Nightside of Earthen Sites
17:30-17:45	B775	Shuo Wang	A Comprehensive Study of Water Seepage Disease at the Old Drum Tower Site in Chongqing Based on Meso-Test, Geological Exploration and Refined Simulation
17:45-18:00	565	Yi Wang	Study on Prevention and Control Measures of Groundwater Seepage Disease in Leshan Giant Buddha Based on Seepage Mode Analysis

Saturday, Sept. 23-Afternoon

Theme #10 Session #03

Applied Geology for Major Engineering Projects

>Mechanism, Monitoring, and Early Warning of Dynamic Disasters in Deep Underground Engineering

Venue: Gaoxin Hall **Moderator: Feng Dai & Quan Jiang**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B857**	**Feng Dai** **Invited**	**Progressive Damage and Fracture Mechanism of Dynamic Disaster of Engineering Rock Mass: New Advances and Engineering Applications**
13:40-14:00	**B96**	**Tianbin Li** **Invited**	**A Deep-Buried Tunnel Microseismic Monitoring and Rock Burst Warning System Based on Deep Learning and Virtual Simulation Technology**
14:00-14:15	B858	Zhenhao Xu	Intelligent Identification of Lithology and Adverse Geology in Tunnelling
14:15-14:30	B550	Quan Jiang	Fracture Behavior of Pre-Tunnel Rocks Subjected to Shear Loading
14:30-14:45	B213	Qiong Wu	Experimental Study of the Influence of Wetting and Drying Cycles on the Strength of Intact Rock Samples from a Red Stratum in the Three Gorges Reservoir Area
14:45-15:00	B214	Yue Qin	Influence of Wetting and Drying Cycles on the Shear Behavior of Discontinuities Between Two Different Rock Types with Various Surface Topographies
15:00-15:15	B860	Ang Li	Investigations on Mechanical Behaviour of Bedded Rock Masses Using a Microseismic Data-Driven Model
15:15-15:30	B12	Fanmeng Kong	Developmental Characteristics and Hazard Effects of Active Fault Zones Along the Sichuan-Tibet Railway
15:30-15:50			**Coffee Break**

Theme #10 Session #04

Applied Geology for Major Engineering Projects

>Advanced Geological Prediction Techniques and their Applications in Tunnel Construction

Venue: Gaoxin Hall **Moderator: Shyam Lal Kapil & Shaoshuai Shi**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**B867**	**Shaoshuai Shi** **Invited**	**Key Technologies and Applications of Geological Detection and Surrounding Rock Perception of Tunnel Drilling Jumbo**
16:10-16:30	**732**	**Shyam Lal Kapil** **Invited**	**Resolution of Critical Geological Issue by Seismic Tomography in A Northern Himalayan Hydro Tunnel**
16:30-16:45	B903	Guangliang Feng	Immediate Rockburst in Deep Tunnel: Microseismic Monitoring and Warning
16:45-17:00	268	Darren Paul	A Method of Representing Uncertainty in Three Dimensional Digital Ground Models
17:00-17:15	B122	Gang Yang	A Method for Extracting Discontinuities of Tunnel Rock Mass Based on 3D Scene Reconstruction and Spatio-Temporal Series Prediction
17:15-17:30	B862	Lichao Nie	Intelligent Detection of Unfavorable Geology and Active Disaster Control in Tunnel Cons
17:30-17:45	B865	Yuxiao Ren	Physics-Driven Deep-Learning Inversion of Seismic Velocity for Geological Forward-Prospecting in Tunnels
17:45-18:00	B859	Kunkun Dai	Tunnel Multi-Information Modeling and 3D Visualization

Technical Schedule

Saturday, Sept. 23-Morning

Theme #12 Session #05

Young Engineering Geologist Afternoon

>Geological Hazards and Risk Management

Venue: Jinjiang Hall **Moderator: Te Xiao & Wenjun Lu**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B203**	**Xin Liu** **Invited**	**An Analytical Solution for Quantifying Annual Probability of Slope Failure Induced by Rainfall**
08:40-09:00	**B292**	**Jian He** **Invited**	**Prompt Quantitative Risk Assessment for Rain-Induced Landslides**
09:00-09:15	B530	Xuyan Wu	Effects of Debris Flow Particle Size-Segregation on Deposit Morphology
09:15-09:30	49	Xiaoyun Sun	Slope Displacement Prediction Based on Cross Distillation for Small Samples
09:30-09:45	B260	Yibing Ning	Evolution Mechanism and Stability Evaluation of Deep-Seated Toppling Slopes in the Upper Lancang River, Southwest China
09:45-10:00	B841	Junrong Zhang	Input-Parameter Optimization Using a SVR-Based Ensemble Model to Predict Landslide Displacements in a Reservoir Area - A Comparative Study
10:00-10:15	B513	Haibing Yu	Infiltration Model and Dynamic Stability for Bedding Rock Slope with Soft Interlayer Under Rainfall Conditions
10:15-10:30	B630	Shiyu Hu	Factors, Pathways, and Strategies for Enhancing Public Disaster Preparedness Willingness in Geological Hazard-Prone Areas
10:30-10:45			**Coffee Break**

Theme #12 Session #05

Young Engineering Geologist Afternoon

>Geological Hazards and Risk Management

Venue: Jinjiang Hall **Moderator: Leilei Liu & Chen Chen**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B106**	**Adebayo Olaniyi Afolabi** **Invited**	**Geohazrd Assessment of Aboto – Alita River Bridge, Southwestern, Ondo State, Nigeria**
11:05-11:25	**B813**	**Leilei Liu** **Invited**	**Dynamic Prediction of Landslide Failure-Time Using Ensemble Learning Based on Classical Prediction Models**
11:25-11:40	B202	Dingtao Yang	An Experimental Study: the Size Effect of Particle Substitution in Shear Tests of Granular Material
11:40-11:55	B198	Songlin Liu	A Physics-Informed Data-Driven Model for Landslide Susceptibility Assessment in the Three Gorges Reservoir Area
11:55-12:10	B370	Ruochen Jiang	River Damming Threats by Massive Glacier Detachments in the Yarlung Tsangpo Grand Canyon

Saturday, Sept. 23-Afternoon

Theme #12 Session #05

Young Engineering Geologist Afternoon

>Geological Hazards and Risk Management

Venue: Jinjiang Hall **Moderator: Xin Liu & Jian He**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B401**	**Changdong Li** **Invited**	**Landslide Prediction Model Based on Data Assimilation Method Considering Dynamic Evolution Process**
13:40-13:55	B184	Kun Fang	Application of Smart Monitoring Technology in Landslide Model Test
13:55-14:10	B142	Zhongyuan Xu	Derivation of Rainfall Thresholds for Shallow Landslides by the Geostatistical Interpolation
14:10-14:25	B269	Shilin Zhu	An Automatic Slope UnIts Delineation Software Integrating a New Method Based on Contour
14:25-14:40	B116	Xingchen Zhang	Deformation Trend and Probabilistic Analysis of Bank Landslides Using Time-Series InSAR and Hurst Index
14:40-14:55	B691	Haoran Yang	A Preliminary Study of Multi-Failure Mechanism of Landslide Dams
14:55-15:10	B328	Yajiao Li	Deformation Monitoring Model of Faced Rockfill Dams Based on Component Separation
15:10-15:25	B494	Qiqi Liu	Characteristics and Geological and Surficial Evolution Processes of Loess Landslides Under the Influence of Faults and Rivers
15:25-15:50			**Coffee Break**

Theme #12 Session #02

Young Engineering Geologist Afternoon

>Multiphysics Coupling in Fractured Rocks and Its Engineering Application

Venue: Jinjiang Hall **Moderator: Alejandro Celli & Tümay Kadakci Koca**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**B240**	**Hui Wu** **Invited**	**Effect of Matrix on Tracer Transport in Subsurface Fractured Reservoir**
16:10-16:30	**B904**	**Jiaqing Zhou** **Invited**	**Geometry-Based Prediction of Substance Migration in Fractured Rocks: Models and Implicaitons**
16:30-16:45	B93	Xuan-Xinh Nguyen	A Novel Pulse-Decay-Balance Method for Aperture Measurements of Smooth Rock Joints
16:45-17:00	B289	Yunfeng Ge	A Semi-Automatic Approach to Quantifying the Geological Strength Index Using Terrestrial Laser Scanning
17:00-17:15	B567	Lei Wang	Coupled TMD Modeling of Cryogenic Fracturing in Coal Rocks
17:15-17:30	B469	Jingyu Kang	Automated Identification of Rock Discontinuity Orientation Based on 3D Point Clouds
17:30-17:45	B133	Kai Liu	Experimental Study on Triaxial Creep Characteristics of Fissure Loess
17:45-18:00	B790	Zhen Liao	Numerical Investigation on Non-Darcian Flow Behaviour in Fracture Networks

Technical Schedule

Saturday, Sept. 23-Morning

Theme #05 Session #01

Active Tectonics, Geomorphology and Geological Hazards

> Rockslide/Rock Avalanches: Geomorphology, Sedimentology, and Emplacement Dynamics

Venue: Shufeng Hall **Moderator: Stuart Dunning & Yufeng Wang**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B205**	**Bruno Cagnoli** **Invited**	**Flow Front Mobility of Rock Avalanches**
08:40-09:00	**B627**	**Shiva P. Pudasaini** **Invited**	**Mechanically Controlled Landslide Deformation**
09:00-09:15	B705	Muhammad Bilal	Three-Dimensional Runout and Spatio-Temporal Evolution of Landslides in High Elevation Regions
09:15-09:30	462	Bo Wang	Research Progress and Trend Analysis of Deep Fracture of Deep-Cut Canyon Rock Slope
09:30-09:45	B594	Puskar R. Pokhrel	Multi-Phase Mass Flow Simulations with Native Nepalese Supergrains
09:45-10:00	B510	Huijun Liu	Calculation of Lagrangian Mechanics for Collapse
10:00-10:15	B349	Chao Yue	The Application and Prospect of Flexible Protection Technology in China
10:15-10:30	B570	Ge Gao	On Tmicroscale Modeling of Fracture Propagation in Rock: Implication to Rock Slope Instability
10:30-10:45			**Coffee Break**

Theme #05 Session #01

Active Tectonics, Geomorphology and Geological Hazards

> Rockslide/Rock Avalanches: Geomorphology, Sedimentology, and Emplacement Dynamics

Venue: Shufeng Hall **Moderator: Bruno Cagnoli & Shiva P. Pudasaini**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B344**	**Ranjan Kumar Dahal** **Invited**	**Managing the Risk from Rock Falls in Nepal**
11:05-11:20	B305	Yufeng Wang	Research on the Sedimentary Characteristics of Rock Avalanches in the Tibetan Plateau of China
11:20-11:35	B609	Jeevan Kafle	Novel Mechanical-Dynamical Aspects of Native Nepalese Complex Granular Slides
11:35-11:50	B264	Nenghao Zhao	Research on Dynamic Model of High-Speed Landslides Based on Mechanism of Frictional-Thermal-Pressurization
11:50-12:05	B721	Yinpeng Liu	Investigation for Failure Mechanism and Simulation for Long-Runout of the Catastrophic Rock Landslide in the Shanyang Vanadium Mine, China

Saturday, Sept. 23-Afternoon

Theme #05 Session #03

Active Tectonics, Geomorphology and Geological Hazards

>Large-Scale Geohazard in Active Tectonic Region, as a Special Session of C24-IAEG

Venue: Shufeng Hall **Moderator: Yongshuang Zhang & Guoxiang Yang**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**Annual Report of C24 Progress**		
13:40-14:00	**B112**	**Ranjan Kumar Dahal** **Invited**	**DGSDS in the Himalayas**
14:00-14:20	**B135**	**Yongshuang Zhang** **Invited**	**Reactivation Mechanism of Ancient Landslide Triggered by Coupling of Fault Creep and Water Infiltration: A Case Study from the East Tibetan Plateau**
14:20-14:35	B731	George Papathanassiou	New Insights Between the Occurrence of Liquefaction Phenomena with the Evolution of a Floodplain; Case Studies from Damasi, Greece 2021 and Turkey/Syria 2023 Earthquakes
14:35-14:50	B529	Shobhana Lakhera	Preliminary Assessment of Displacement in Joshimath Town, from the Perspective of Deep-Seated Landslides
14:50-15:05	B708	Changbao Guo	Study on the Repeated Failure Patterns and Potential Risks of the Yigong Long Run-Out Landslide, Tibetan Plateau, China
15:05-15:20	B380	Chenxiao Tang	Ancient Landslides in the Western Sichuan, China: Mapping, Analysis, and Susceptibility
15:20-15:35	B247	Linfeng Fan	Joint Impacts of Tectonic Uplift, River Incision and Climate Change on Landslide Triggering in the East Tibetan Plateau
15:35-15:50			**Coffee Break**

Theme #03 Session #04

Megacity Engineering Geology

>Seismic Characterization, Design and Analysis of Urban Underground Space

Venue: Shufeng Hall **Moderator: Zhiyi Chen & Chuanbin Zhu**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**B102**	**Chuanbin Zhu** **Invited**	**Earthquake Site Effects from Observation to Prediction and from Site-Specific to Region-Scale Modelling: Covering the Whole Spectrum**
16:10-16:30	**B778**	**Zhiyi Chen** **Invited**	**State-of-the-Art and Practice of Seismic Resilience for Urban Underground Structures**
16:30-16:45	B781	Tianxiao Cheng	3D Geological Modeling and Underground Space Evaluation in Foshan Sanlong Bay Area
16:45-17:00	B783	Bu Zhang	Seismic Failure Mechanism of the Underground Shaft Structure with Crossing Layered Rock Soil Strata
17:00-17:15	B786	Bo Ni	Convolutional Neural Network-Based Seismic Fragility Analysis of Subway Station Structure Considering Spatial Variation of Site Shear-Wave Velocity
17:15-17:30	B83	Junju Xie	Development of a New Site Classification System for China Based on VS30
17:30-17:45	B157	Kun Ji	Development of China Strong-Motion Stations Site Database
17:45-18:00	B769	Shengqi Xia	Research on Seismic Performance Index of the Vehicle-Track-Tunnel System

Technical Schedule

Saturday, Sept. 23-Morning

Theme #03 Session #01

Megacity Engineering Geology

>Development and Utilization of Urban Underground Space and Adverse Geology

Venue: Shuhan Hall **Moderator: Jianxiu Wang & Xia Bian**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B905**	**Yuyong Jiao** **Invited**	**Study on the Mechanism of Water and Sand Inflow Disasters in the Deep Foundation Pit of A Subway Station near a River**
08:40-09:00	**B462**	**Qiangbing Huang** **Invited**	**Land Subsidence and Ground Fissures and Its Countermeasures for Metro Tunnel in Xi'An, China**
09:00-09:15	B604	Xia Bian	Fault-Based Zoning Methods for 3D Geological Modelling and Borehole Location Smart Determination Using Machine Learning Method
09:15-09:30	B595	Jingqi Wang	Implementing Surface Wave Methodology for Precise Detection of Shallow Coal Seam Mining Areas
09:30-09:45	663	Yanxia Long	Carrying Capacity of Urban Underground Space and Influencing Factors Analysis for a Costal Megacity
09:45-10:00	B546	Yunxiao Xin	Experimental Study on the Mechanical Response of a Buried Tube in Clay During the Lower Soil Cavity Development
10:00-10:15	B521	Bei Zhang	Investigation of the Impact Dynamics of High-Speed Granular Flow Based on Centrifuge Modeling and DEM Simulation
10:15-10:30	B773	Sicheng Lin	Numerical Investigation of Creep Characteristic and An Innovative Simple Model of Rock for Deep Underground Engineering
10:30-10:45			**Coffee Break**

Theme #03 Session #03

Megacity Engineering Geology

>Recent Advances in Megacity Engineering Geology

Venue: Shuhan Hall **Moderator: Tao Zhao & Atsushi Yashima**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B788**	**Yu Huang** **Invited**	**Vulnerability Analysis of Coastal Pile Foundation Engineering Under Storm Surge**
11:05-11:25	**661**	**Atiye TUĞRUL** **Invited**	**Engineering Geology for Reporting Aggregates**
11:25-11:40	B9	Xingyue Li	Modeling Snow Avalanche Regimes and Their Transitions on Three-Dimensional and Real-Scale Complex Terrain
11:40-11:55	B420	Yuemin Sun	Spatio-temporal Evolution of Land Subsidence and Susceptibility Zonation of Associated Ground Fissures in the Urban Area of Loess Plateau: A Case in Xianyang City, China
11:55-12:10	B722	Yu Li	The Application of Seismic Surface Waves and Traveltime tomography Imaging in the Groundwater Monitoring on the Dongzhi Loess Tableland

Saturday, Sept. 23-Afternoon

Theme #03 Session #03

Megacity Engineering Geology

>Recent Advances in Megacity Engineering Geology

Venue: Shuhan Hall **Moderator: Xingyue Li & Wuwei Mao**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**631**	**Ueno Shinya** **Invited**	**Structural Health Monitoring of Expressway Embankment Using Distributed Acoustic Sensing (DAS)**
13:40-14:00	**B651**	**Tao Zhao** **Invited**	**Assessing Rainfall-Induced Embankment Failure Through FEM Hydro-Mechanical Coupling Modeling**
14:00-14:15	B772	Zhiqian Liu	Non-Linear Stochastic Seismic Analyses of a Typical Metro Station Structure Under Multi-Source Uncertainty Conditions
14:15-14:30	679	Yandong Bi	Experimental Study on Wave-Induced Pore Pressure Response and Instability of Layered Submarine Clayey Slope
14:30-14:45	680	Shu Zhou	A Depth-Integrated Model for Simulating the Dynamic Process of Submarine Landslide and Its Induced Tsunami Hazard
14:45-15:00	B734	Xiaolin Tan	Experiment and CFD-DEM Simulation on Collapse Dynamics of Submarine Granular Flows
15:00-15:15	B797	Xiaoyan Jin	The Effects of the Impact of the Rainfall-Induced Landslide Debris on the Building Based on MPM Method
15:15-15:30	B787	Xin Luo	The Introduction of "ESGH" Model—Recent Advances on Earthquake-Resilient Cities in the Intelligence Era
15:30-15:50			**Coffee Break**

Theme #03 Session #02

Megacity Engineering Geology

>Megacity Geotechnical Engineering under Complicated Geological Conditions

Venue: Shuhan Hall **Moderator: Changbing Qin & Dongming Zhang**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**4**	**Jianxiu Wang** **Invited**	**Land Subsidence Mechanism Under the Influence of Deep Recharging, Middle Dewatering and Shallow Loading in Shanghai**
16:10-16:30	**B451**	**Hoai-Han Le** **Invited**	**Scale Effect on the Determination of Spatial Correlation Factor Used in Markov Random Field**
16:30-16:45	103	Chunxue Du	Gradient Ratio Tests on Nonwoven Geotextiles Filtering Clay Under Normal Stresses
16:45-17:00	B219	Liming Xue	Study on Dynamic Response of Subgrade of High Speed Railway Crossing Ground Fissure Site
17:00-17:15	B298	Suran Wang	Large Displacement Shear Characteristics of Sand Particles Affected by High Temperatures: Heat Degradation and Particle Breakage
17:15-17:30	56	Dan Zhang	Study on Properties of CFG Pile Composite Foundation with Large Diameter
17:30-17:45	60	Hao Wang	Study on the Method of Filling Pit Foundation Treatment in Beijing Area
17:45-18:00	410	Ciqie Jili	Research on Soil Instability Characteristics and Prevention Measures of Row Pile Support in Expansive Soil Deep Foundation Pit

Technical Schedule

Sunday, Sept. 24-Morning

Theme #08 Session #11

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Coseismic Landslides: Disaster Risk Cognition and Reduction

Venue: Crystal Hall 1 **Moderator: Siyuan Zhao & Sixiang Ling**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B733**	**Gerardo Grelle** **Invited**	**Seismic-Induced Landslides Hazard Prediction in Relation to the Regional Strong-Motions Features**
08:40-08:55	B621	Gonghui Wang	A Translational Deep-Seated Bedrock Landslide Triggered by the 2018 Hokkaido Eastern Iburi Earthquake
08:55-09:10	93	Longqi Li	Failure Mode of Steep Bedding Slopes Undergoing Strong Earthquake
09:10-09:25	240	Xiao Cheng	Permanent Displacement of Slopes Considering Horizontal and Vertical Ground Motions Based on the Tensile-Shear Sliding Mode
09:25-09:40	294	Md. Azahar Hossain	Earthquake Induced Landslides in Haiti: Slope Characteristics and Building Damage
09:40-09:55	B386	Xiaobo Li	Seismic Effects Analysis for the Wangjiayan Landslide Using Microtremor HVSR Method
09:55-10:10	B457	Shyam Lal Kapil	Resolution of Critical Geological Issue by Seismic Tomography in a Northern Himalayan Hydro Tunnel
10:10-10:25	716	Vivek Sharma	Geological Risk Assessment and Prevention Measures for Hydropower TBM Tunnelling Under High Cover
10:25-10:45			**Coffee Break**

Theme #08 Session #11

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Coseismic Landslides: Disaster Risk Cognition and Reduction

Venue: Crystal Hall 1 **Moderator: Gerardo Grelle**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B498**	**Siyuan Zhao** **Invited**	**Giant River-Blocking Landslide Dams with Multiple Failure Sources in the Nu River in Southeastern Tibet**
11:05-11:20	B625	Marco Loche	Land Surface Temperature Controls Post-Earthquake Landslide Activity
11:20-11:35	548	Rui Sun	System Reliability Analysis of Geosynthetic-Reinforced Soil Slopes Under Seismic Conditions
11:35-11:50	B120	Jingyu Xia	Hazard Assessment of Earthquake-Induced Landslide by Newmark Model and Geophysical Method
11:50-12:05	B300	Kun He	Monitoring and Prediction of InSAR-Derived Post-Seismic Hillslope Deformation Rates

Sunday, Sept. 24-Afternoon

Theme #08 Session #02

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Recent Development of Numerical Models for Simulating Geohazard Processes and Chains of Geological Hazards

Venue: Crystal Hall 1 **Moderator: Tingkai Nian & Lu Zheng**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B275**	**Jia-Jyun Dong Invited**	**The Effects of Inherent and Stress-Induced Anisotropy of Permeability on Pore Pressure Distribution and Slope Stability of Rock Slopes**
13:40-14:00	**B87**	**Zheng Han Invited**	**Paradigm Shifting in Debris-Flow Research: From Numerical Models to AI-Boosted Solution**
14:00-14:20	**B682**	**Qiuhua Liang Invited**	**A Coupled Human and Natural Systems (CHANS) Modelling Approach for Natural Hazard Risk Assessment**
14:20-14:35	B512	Yaqi Gao	Study the Fault Evolution and Earthquake Triggering Based on the Rate- and State-Dependent Friction Law
14:35-14:50	B50	Chuanhao Pu	Mapping and Kinematic Trend Evaluation of Potential Landslides Related to Mega Land Creation with Multitemporal InSAR
14:50-15:05	310	Wenbin Chang	Research of Dynamic Fragmentation Mechanism of Columnar Rock Collapse Via DEM
15:05-15:20	637	Chengzhi Xia	An Improved Bond-Based Smoothed Particle Hydrodynamics for Simulating Progressive Failure of Rock Slope Under Seismic Conditions
15:20-15:35	B282	Changze Li	Dynamic Analyses of Multi-Block Rockfall Based on Three-Dimensional Discontinuous Deformation Analysis
15:35-15:50	B676	Pengcheng Yu	Improved Discontinuous Deformation Analysis Method for Fracturing Process Analysis of Deep Rock Mass

Theme #08 Session #02

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Recent Development of Numerical Models for Simulating Geohazard Processes and Chains of Geological Hazards

Venue: Crystal Hall 1 **Moderator: Jia-Jyun Dong & Zheng Han**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**B757**	**Chaojun Ouyang Invited**	**A Numerical Modeling Platform of Dynamic Process of Earth-Surfaced Flow——Massflow**
16:10-16:30	**B535**	**Om Prasad Dhakal Invited**	**Physically-Based Slope Stability Analysis Under Climate Change: Effect of Temperature**
16:30-16:45	B737	Shengwu Qin	Analysis and Dynamic Simulation of a Crater Lake Break-out Lahar: Changbaishan-Tianchi Volcano
16:45-17:00	B377	Lili Xiao	Tsunami Squares Numerical Simulation for Landslide Generated Waves on Considering Dynamic Models of Landslide-Water Interactions
17:00-17:15	B496	Shiyao Jia	A High Precision 3D Numerical Modeling Method for High-Steep Slopes Based on the UAV Nap-of-the-Object Photogrammetry
17:15-17:30	B110	Zhi Gao	Future Glacial Lake Outburst Flood Hazard and Downstream Impact of the Galong Co Lake, Tibet Himalaya
17:30-17:45	B224	Zhengyang Su	High-Fidelity Modelling of Landslide Dam Overtopping Failure by Coupling Smoothed Particle Hydrodynamics Method and Discrete Element Method
17:45-18:00	B558	Lu Zheng	Contributions of Joint Structure and Free-Fall to the Fragmentation of Rock Avalanche: Insights from 3D Discrete Element Analyses

Technical Schedule

Sunday, Sept. 24-Morning

Theme #01 Session #04

Engineering Geomechanics of Rock and Soil Masses

> Rock Mass Engineering Geomechanics

Venue: Crystal Hall 2 **Moderator: Charalampos Saroglou & Jianchun Li**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B906**	**Louis Ngai Yuen Wong** **Invited**	**Unraveling the Mysteries of Thermal Strengthening in Deep Rock Formation**
08:40-09:00	**B556**	**Hongwei Yang** **Invited**	**Rock-cutting Tool Interactions with Normal Indentation Tests**
09:00-09:15	670	Xin Yu	Enhancing Rock Mass Stability Through the Efficient Utilization of Backfill
09:15-09:30	B476	Fengchang Bu	Evaluation of Tested and Simulated Acoustic Emission Characteristics of Rocks
09:30-09:45	610	Shanpeng Cao	Effect of Initial Freeze-Thaw Damage on Sandstone Failure and Energy Dissipation Mechanisms Under Triaxial Loading
09:45-10:00	B47	Hua Du	Mechanical Properties and Strength Criterion of Clayey Sand Reservoirs During Natural Gas Hydrate Extraction
10:00-10:15	97	Jun Zhu	Study on Compressive Strength Degradation of Hard Rocks Induced by Water Saturation Using Acoustic Emission
10:15-10:30	289	Stephen Wilkinson	Pore Fluid Composition Impact on the Geotechnical Behaviour of Foundations
10:30-10:45			**Coffee Break**

Theme #01 Session #04

Engineering Geomechanics of Rock and Soil Masses

> Rock Mass Engineering Geomechanics

Venue: Crystal Hall 2 **Moderator: Hongwei Yang & Gianvito Scaringi**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**646**	**Jianchun Li** **Invited**	**Study on Frictional Slip Behaviors of Rock Discontinuity Using an Impact-Induced Direct Shear Method**
11:05-11:25	**550**	**Charalampos Saroglou** **Invited**	**Engineering Classification for the Determination of the Uniaxial Compressive Strength of Carbonate Fault Rocks**
11:25-11:40	B907	Feng Xiong	Critical Peak Accelerations of a Slope Against Actions of P and SV Waves with Different Incident Directions
11:40-11:55	695	Mazlina Razali	Quantitative Weathering Assessment of Granite Rock Slope Surfaces in Malaysia Using Image Analysis and Cielab Color Data: A Case Study
11:55-12:10	B416	Jingyao Gao	An Extended Discontinuous Deformation Analysis for Simulation of Grouting Reinforcement in Water-Rich Fractured Rock Tunnel

Sunday, Sept. 24-Afternoon

Theme #01 Session #04

Engineering Geomechanics of Rock and Soil Masses

> Rock Mass Engineering Geomechanics

Venue: Crystal Hall 2 **Moderator: Yasuhiro Yokota & Jiaxing Dong**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**453**	**Gianvito Scaringi** **Invited**	**Behavior of Bentonite Buffer in A Nuclear Waste Repository: Insights from a Thermo-Hydro-Mechanical Model Based on Hypoplasticity**
13:40-14:00	**B931**	**Lihui Li** **Invited**	**Cross-Scale Structure and Mechanical Properties of Laminated Rock Mass**
14:00-14:15	B490	Dongming Gu	Development of a 3D Reconstruction and Visualization Method of Transparent Soil in Geotechnical Laboratory Modeling
14:15-14:30	B471	Miaomiao Wang	Degradation of Physico-Mechanical Properties and Damage Mechanisms of Sandstone Under the Combined Action of Freeze-Thaw Cycles, Chemical Solution, and Compressive Stress
14:30-14:45	B104	Rui Zhang	A New Discrete Element Modeling of Granite Fracturing Considering Microstructure and Fluid-Structure Interaction
14:45-15:00	B118	Lirong Qi	Evaluating the Influence of Freeze-Thaw Cycles on Joint Strength of Granite Along Sichuan–Tibet Railway, China
15:00-15:15	282	Huiguan Chen	A Micro-mechanics-Based Damage Model for Freeze-Thaw Rock Considering Moisture Migration
15:15-15:30	B812	Chaoying Gu	Study on Engineering Properties of Fly Ash Solidified Heavy Metal Ion Contaminated Loess
15:30-15:50			**Coffee Break**

Theme #01 Session #04

Engineering Geomechanics of Rock and Soil Masses

> Rock Mass Engineering Geomechanics

Venue: Crystal Hall 2 **Moderator: Songfeng Guo & Dongming Gu**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**B618**	**Yasuhiro Yokota** **Invited**	**Application of Satellite Sensing Data to Ground Deformation Monitoring**
16:10-16:30	**454**	**Jiaxing Dong** **Invited**	**Geological Characteristics of Sandy Dolomite in the Water Diversion Project in Central Yunnan Provinve**
16:30-16:45	B668	Mingdong Zang	An Approach to Spatial and Temporal Probability Evaluation of Earthquake-Induced Landslide Hazard
16:45-17:00	B58	Xiaosen Kang	Twin Shear Unified Bounding Surface Plasticity Model for Soft Rocks: Theory and Application
17:00-17:15	B136	Ying Xu	Permeability Evolution of Argillaceous Sandstone Subjected to Hydromechanical Loading
17:15-17:30	B145	Zhi Zheng	Fracture Evolution Mechanism, Mechanical Model and Prediction Method of Rock Under True Triaxial Stress
17:30-17:45	588	Dazhao Lu	Experimental Investigation of Energy Extraction Power from Heated Granite
17:45-18:00	B119	Mengjie Li	A Numerical Study of Viscous Granular Flow in Artificial Step-Pool Systems: Flow Characteristics and Structure Optimization

Technical Schedule

Sunday, Sept. 24-Morning

Theme #09 Session #02

Technological Innovation in Engineering Geology (3rd Shaoxing International Forum)

>In-situ Geo-technology

Venue: Crystal Hall 3 **Moderator: Zhongqi Quentin Yue & Yujie Wang**

Time	Paper ID	Speaker	Paper Title
08:00-08:20	**B60**	**Yujie Wang** **Invited**	**Intelligent Recognition for Parameters of Rock Masses Based on the Digital Drilling Technique**
08:20-08:40	**B71**	**Kai Zhang** **Invited**	**Real-Time Estimating Method on Rock Strength via MWD of Roofbolter and Its Application to In-Situ Grouting Quality Evaluation**
08:40-08:55	B62	Siyuan Wu	Time Series Analyses of Measurement While Drilling (MWD) Data for In-Situ Ground Evaluation
08:55-09:10	638	Peng Li	Research on Mechanism and Application of Rotary Penetration Test
09:10-09:25	B320	Wendal Victor Yue	Drilling Dynamic Model for Drilling Resistance Characterization Based on Newtonian Mechanics
09:25-09:40	476	Dingmao Peng	A New Classification Method of Karst Vertical Morphology in Bridge Site Area Based on Drilling Data
09:40-09:55	B153	Xuefan Wang	New In-Situ Method for Quality Assessment and Project Management of Ground Improvement
09:55-10:10	B266	Weifeng Sun	Study on In-Situ Soil Moisture Measurement in Hole

Theme #09 Session #02

Technological Innovation in Engineering Geology (3rd Shaoxing International Forum)

>In-situ Geo-technology

Venue: Crystal Hall 3 **Moderator: Michael Celia & Bo Li**

Time	Paper ID	Speaker	Paper Title
10:10-10:30	**B878**	**Chun'an Tang** **Invited**	**Spalling in Extreme Ground Motion and Evidence from the 2008 Wenchuan Earthquake**
10:30-10:50	**B838**	**Wenjie Xu** **Invited**	**CoSim – A New Software for Geomechanics and Geohazards**
10:50-11:05	B851	Pengzhi Pan	Development of Casrock for Modeling of Deep Hard Rock Fracturing Process
11:05-11:20	B742	Chun Liu	Numerical Analysis of CO_2 Transfer in Fractured Rock Based on An Improved Discrete Model
11:20-11:35	B850	Chun Feng	CDEM: A Continuous Discontinuous Numerical Analysis Method for Geological Bodies
11:35-11:50	B744	Hongyuan Liu	Development and Application of a Parallelised Hybrid Finite-Discrete Element Method for Geohazard Mitigation and Prevention
11:50-12:05	B409	Qinyuan Liang	Study on Inverse Size Effect of Rock Uniaxial Compressive Strength Based on Grain Based Model Reconstruction Method
12:05-12:20	B4	Gang Mei	A Deep Learning Approach Using Graph Convolutional Networks for Slope Deformation Prediction Based on Time-Series Displacement Data

Sunday, Sept. 24-Afternoon

Theme #09 Session #02

Technological Innovation in Engineering Geology (3rd Shaoxing International Forum)

>In-situ Geo-technology

Venue: Crystal Hall 3 **Moderator: Michael Celia & Lihui Li**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B746**	**Eugene Voznesensky Invited**	**Spatial Heterogeneity of Soil Properties from 2D and 3D Engineering Geological Modelling**
13:40-14:00	**B188**	**Michael Celia Invited**	**Fluid Leakage Along Old Oil and Gas Wells: Modeling and Measurements**
14:00-14:15	662	Pengcheng Ma	Research on Application of New Standard Penetration Test in Tianjin Metro Project
14:15-14:30	217	Dongming Zhang	Evaluation of Soil Properties at Pile Location Based on CPT Data Using Spectral Clustering and Hidden Markov Chain
14:30-14:45	145	Dongdong Fan	Prediction on Ground Settlement due to Pumping by A Hybrid Method
14:45-15:00	361	Runqing Ye	Study on Engineering Geology Petrofabric Regionalization of Slope Surface Based on Multi-Source Data
15:00-15:15	16	Jiangrong Hou	On Stability of a Slope with Bedrock Using the Upper Bound Limit Analysis
15:15-15:30	B3	Yuting Yang	Deep Transfer Learning Approach for Identifying Slope Surface Cracks
15:30-15:50			**Coffee Break**

Theme #09 Session #04

Technological Innovation in Engineering Geology (3rd Shaoxing International Forum)

>Current Trends and Future Perspectives of Machine Learning Applications in Geoscience and Engineering Geology

Venue: Crystal Hall 3 **Moderator: Changdong Li & Jie Dou**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**267**	**Yimeng Zhou Invited**	**Feasibility and Challenges of Computer Vision-Based Automatic Rock Type Classification**
16:10-16:25	432	Chengyong Fang	A New Coseismic Landslides Prediction Model Based on Extreme Gradient Boosting Decision Tree
16:25-16:40	B935	Jie Dou	A Comparison of High-precision 3D Modeling of UAV Under Different Flight Modes in Stability Evaluation of Huangtupo No. 1 Riverside Sliding Mass
16:40-16:55	239	Ning Ma	Deep Learning Deriving New Generation Geophysical interpretation for Landslide by Microtremor Method
16:55-17:10	320	Qingming Li	A Preliminary Framework of Standard Sequence of Rock-Soil Strata Based on the Large Database
17:10-17:25	B237	Nikolay Nikiforov	The First Artificial Intelligence-Powered Cloud System for Engineering Geology
17:25-17:40	B306	Fan Meng	Multilevel Wavelet Decomposition Network for Missing Acoustic Well Log Reconstruction
17:40-17:55	B741	Abd Rasid Jaapar	Leveraging on Machine Learning for Managing Geohazard Impacts to Structural Assets

Technical Schedule

Sunday, Sept. 24-Morning

Theme #08 Session #01

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Georisk Assessment Using Machine Learning

Venue: Crystal Hall 4 **Moderator: Faming Huang & Xing Zhu**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**47**	**Alexander Strom** **Invited**	**Rock Avalanches' Morphological Classification – Important Tool for Risk Assessment**
08:40-09:00	**B324**	**Yaming Tang** **Invited**	**Geological Hazard Risk Assessment System Based on 3D Real Scene and AHP: A Case Study**
09:00-09:15	B511	Ruoshen Lin	Travel Distance Prediction for Rock Avalanche Based on Machine Learning
09:15-09:30	B308	Zhaodong Li	Identification and Assessment of Geo-Hazard Risk in The Typical Chinese Loess Region
09:30-09:45	636	Yuting Ma	Enhancing Spectral Clustering Performance Using Self-supervised Support Vector Machines for Regional Landslide Risk Assessment Visualization: A Case Study in Han-yuan County, Ya'an City
09:45-10:00	650	Xiao Ling	A Comprehensive Landslide Hazard Assessment Around Transmission Lines after the 2022 Ms6.8 Luding Earthquake, China
10:00-10:15	B485	Jierui Li	Frequent Dry-Wet Cycles Promote Debris Flow Occurrence: Application in Susceptibility Assessment
10:15-10:30	B303	Xiao Lu	Distribution and Hazard Assessment of Collapses and Landslides in Sichuan-Tibet Traffic Corridor
10:30-10:45			**Coffee Break**

Theme #08 Session #01

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Georisk Assessment Using Machine Learning

Venue: Crystal Hall 4 **Moderator: Shuihua Jiang & Leilei Liu**

Time	Paper ID	Speaker	Paper Title
10:45-11:00	B156	Dongxiao Zhang	Efficient Wide-Area Detection of Potential Landslides by Combining InSAR Phase Gradient Stacking and Deep Learning
11:00-11:15	B206	Bijing Jin	Landslide Susceptibility Mapping Based on the Deformation Intensity
11:15-11:30	B412	Shuai Liu	A Case Study on Susceptibility Assessment of Precipitation-Induced Mass Landslides Based on Optimal Random Forest Model, West Qinling Mountains
11:30-11:45	B296	Shaoqiang Meng	A Hybrid Deep Learning Network for Landslide Susceptibility Assessment
11:45-12:00	671	Mingzhou Bai	Research on Intelligent Recognition Algorithms for Common Subgrade Diseases Based on Radar Images
12:00-12:15	172	Wenlian Zhang	Stability Prediction of Rock Slope Based on Fuzzy Clustering GA-FNN Model

Sunday, Sept. 24-Afternoon

Theme #08 Session #10

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Navigating Natural Hazard Risk Assessment and Management: Compound, Consecutive, and Cascading Events

Venue: Crystal Hall 4 **Moderator: Limin Zhang & Haojie Wang**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B492**	**Cees Van Westen** Invited	**Development of A Web-Based Simulation and Information Service to Evaluate the Impact Chains of Multi-Hazard Events: the EU Paratus Project**
13:40-13:55	449	Vincenzo Del Gaudio	Integration of Passive Seismic Techniques to Investigate the Landslide Dam Generated by the Yang Jia Gou Rock Avalanche (Sichuan-China)
13:55-14:10	B809	Haojie Wang	AI-Powered Rain-Induced Landslide Forecasting in Hong Kong
14:10-14:25	B85	Xiaochen Wang	The Effects of the Gully Land Consolidation Project on Geo-Hazard on a Typical Watershed in the Loess Plateau of China
14:25-14:40	B456	Honggang Wu	Study on the Method for Determining the Position of Landslide Slip-Surface with A Typical Inclinometric Curves
14:40-14:55	589	Xianlin Liu	Identifying the Potential Landslides Along Duba Highway (Guangxi, China) in Dense Vegetation Environment by Time Series InSAR
14:55-15:10	B127	Tengfei Wang	Glacial Geohazard Chain Initiation and Transformation Mechanisms in the Southeast Tibet Plateau Under Global Warming
15:10-15:50			**Coffee Break**

Theme #08 Session #15

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Numerical Methods for Engineering Geology and Geohazards

Venue: Crystal Hall 4 **Moderator: Yifei Cui & Giulia Bossi**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**B44**	**Alexander Strom** Invited	**Potential Large-Scale Rock Slope Failures in the Yigong River Valley – Hazards Endangering Population and Critical Infrastructure**
16:10-16:30	**B674**	**Michel Jaboyedoff** Invited	**Line of Energy and Distribution of Rockfall Travel Distances Using Inverse Gaussian Distribution and Other Examples**
16:30-16:45	B500	Yifei Cui	Physical Mechanism of Fluid-driven Fine Particle Migration in Porous Media Using Fluid-Solid Coupling Numerical Method
16:45-17:00	B418	Wendy Zhou	An Overview of the Applications of GIS & Geoinformatics in Landslide Studies
17:00-17:15	B830	Xiaoping Zhang	The Formation Mechanism of Aftershock Landslide
17:15-17:30	B517	Zenan Huo	High-Performance Material Point Method Solver in Julia Language
17:30-17:45	B384	Xiangyu Ma	A Numerical Study of A Soil Slope with Stabilizing Piles Using the Material Point Method
17:45-18:00	B842	Zhou Qian	A Novel Coupling Algorithm for MPM-DEM
18:00-18:15	B528	Huo Fan	Discontinuous Deformation Analysis for Ellipsoidal Particles

Technical Schedule

Sunday, Sept. 24-Morning

Theme #07 Session #01

Deep Earth Resource and Energy Exploitation

> Geomechanics for Deep Oil and Gas Exploitation along the Maritime Silk Road

Venue: Crystal Hall 5 **Moderator: Haiyan Zhu & Zhiwu Li**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B291**	**Zhifeng Wan** **Invited**	**Characteristics of Heat Flow in Southeast Asia and Its Geological Significance**
08:40-08:55	723	Wen Lin	Evolution and Outlook of Fossil Energy Trade Structure Between China and Asean within the Framework of 21st-Century Maritime Silk Road
08:55-09:10	724	Tao Zhang	The Ice Silk Road and Global Energy Security: Implications and Challenges
09:10-09:25	B453	Jiazuo Zhou	Mechanical Behaviors Associated with Partial Phase Transition in Hydrate-Bearing Sediments
09:25-09:40	B723	Zhaopeng Zhang	Study on Multi-Scale Rock Mechanical Properties and Hydraulic Fracture Propagation Law in Conglomerate Reservoirs
09:40-09:55	591	Jiulong Liu	The Geothermal Resource Potential Analysis for Paleogene Dongying Reservoir in Tianjin Binhai New Area
09:55-10:10	B312	Cheng Meng	Geological Controls on Gas Content in Deep Coal Seam: A Case Study of the Northern DJ Block, Southeast Ordos Basin, China
10:10-10:25	B423	Bin Zhang	Analysis of Seepage Characteristics and Grouting Effect of Surrounding Rock of an Underground Water-Sealed Cavern
10:25-10:45			**Coffee Break**

Theme #07 Session #01

Deep Earth Resource and Energy Exploitation

> Geomechanics for Deep Oil and Gas Exploitation along the Maritime Silk Road

Venue: Crystal Hall 5 **Moderator: Pibo Su & Zhifeng Wan**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B795**	**Mian Umer Shafiq** **Invited**	**CO_2 Foam Flooding Efficiency Investigation in Strong Water Drive Sandstone Reservoir to Enhance the Oil Recovery**
11:05-11:20	190	Xuewei Guo	Comprehensive Governance Mode of Coal-Mining Subsidence Area Based on Whole Life Cycle
11:20-11:35	B593	Aichuan Bai	Application of Azimuthal Electromagnetic Wave Imaging Technology in Underground Deep Resource Development
11:35-11:50	B745	Daobing Wang	Numerical Simulation of Diverter Materials in Hydraulic Fractures
11:50-12:05	B673	Shan Wu	Investigation of Acoustic Emission Monitoring for Tensile Fracture Propagation

Sunday, Sept. 24-Afternoon

Theme #06 Session #05

Marine Engineering Geology, Marine Geoenvironment and Disasters -3rd International Symposium on Marine Engineering Geology (ISMEG 2023)>Geological Disasters Associated with Natural Gas Hydrate Systems and Their Effects on Marine Geological Environment

Venue: Crystal Hall 5 **Moderator: Zhifeng Wan**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B383**	**Qianyong Liang** **Invited**	**The Environment Influence of the Gas Hydrate Production Test in the South China Sea**
13:40-14:00	**B497**	**Wei Li** **Invited**	**Formation Mechanism and Controlling Factors of Submarine Creeps Offshore Dongsha Islands, Northern South China Sea**
14:00-14:15	B293	Zhifeng Wan	The Formation Mechanism of Mud Volcano and Its Influence on the Occurrence of Gas Hydrates
14:15-14:30	B155	Jinan Guan	Representative Dynamic Accumulation of Hydrate-bearing Sediments in Gas Chimney System Since 30 Ka Bp in Qiongdongnan Area, Northern South China Sea
14:30-14:45	B695	Chaoyan Fan	Deep Structures of Haima Cold Seeps, South China Sea
14:45-15:00	B568	Jinxiu Yang	The Role of Marine Gas Hydrate Systems in Global Carbon Cycling: What Can Human Beings Do to interfere with This Natural Process?
15:00-15:15	B523	Wei Zhang	Development Characteristics and Genetic Mechanism of Geological Disasters Associated with Natural Gas Hydrates in the Qiongdongnan Basin, Northern South China Sea
15:15-15:30	586	Ting Ni	Environment-Economic Benefit Analysis of Lid Practices Based on Swmm from A Local Level: A Case Study in Chengdu
15:30-15:50			**Coffee Break**

Theme #04 Session #02

Geoenvironmental Engineering and Ecological Solutions

>Sustainable Remediation of Contaminated Sites

Venue: Crystal Hall 5 **Moderator: Liming Hu & Hongxin Chen**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**660**	**Liming Hu** **Invited**	**Field Test Study of Organics-Contaminated Groundwater In-Situ Remediation by Ozone Micro-Nano-Bubbles**
16:10-16:30	**B294**	**Hongxin Chen** **Invited**	**Engineering Properties of Mgo Self-Healing Cutoff Wall Backfill for Contamination Control**
16:30-16:45	B406	Xi'an Wang	Erosion Process of Multiple Debris Flow Surges Caused by Check Dam Removal: An Experimental Study
16:45-17:00	151	Duoji Zerenduoji	Evaluation of a Landfill Composite Liner System Using Different Contaminants
17:00-17:15	B473	Jinshui Wang	Investigation and Analysis of Upstream and Downstream Erosion and Sedimentation Characteristics of Check Dams in Small Watershed
17:15-17:30	B21	Lin Wang	Experimental Investigation of Applying EICP Process to Lead Remediation Under Effect of Urease Concentration and Calcium Source
17:30-17:45	B846	Kunpeng Li	Laboratory Visualization of Hydraulic Fracturing in Compacted Bentonite
17:45-18:00	B187	Dantong Lin	Two-Dimensional Modeling of Nano Zero-Valent Iron Transport and Retention Before and After Phosphate Adsorption

Technical Schedule

Sunday, Sept. 24-Morning

Theme #02 Session #05

Climate Change and Sustainable Development

>Impact of Climate and Environmental Change on Engineering

Venue: Crystal Hall 6 **Moderator: Hao Zheng & Jinyuan Wang**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B908**	**Jianbing Chen** **Invited**	**Stabilization Technologies for Roadbeds in Permafrost Regions and Engineering Practice**
08:40-09:00	**B547**	**Hao Zheng** **Invited**	**Study on the Numerical Evaluation Model for Permafrost Considering Environmental Disturbance**
09:00-09:15	531	Ana Paula Fernandes da Silva	Green-Engineering: Reuse of Concrete from Bored Pile Head Trimming
09:15-09:30	185	Stephen Wilkinson	A Critical Assessment of Microbially and Enzymatically Induced Carbonate Precipitation for Geotechnical Works
09:30-09:45	21	Na Xu	Effect of Oxygen Supply on Behavior of Microbially Induced Carbonate Precipitation (MICP) Cemented Soil
09:45-10:00	B873	Jinyuan Wang	Study on the Mechanical Properties and Hypoplastic Constitutive Model of Frozen Loess
10:00-10:15	B183	Huarui Zhang	Research on Intelligent Identification and Degradation Risk Evaluation of Thaw Slumping
10:15-10:30	B179	Jun Zhang	Ecological Geological Environment Monitoring and Impact Assessment in Qilian Mountains Based on Remote Sensing
10:30-10:45			**Coffee Break**

Theme #06 Session #06

Marine Engineering Geology, Marine Geoenvironment and Disasters -3rd International Symposium on Marine Engineering Geology (ISMEG 2023)>Marine Carbon Dioxide Geological Storage and Shallow Gas Emission: Monitoring,Risk Evaluation and Mechanism

Venue: Crystal Hall 6 **Moderator: Cong Hu & Xiaoyong Duan**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B717**	**Xia Zhang** **Invited**	**Characteristics and Formation Mechanism of the Shallow Biogenic Gas Reservoirs in the Jiangsu-Zhejiang Coastal Plain, Eastern China**
11:05-11:25	**B321**	**Weiguo Hou** **Invited**	**Influence of Sedimentary Environment Evolution on Biogenic Methane Isotopes from Hangzhou Bay**
11:25-11:40	622	Xiaoyong Duan	Effects of Source and Distribution of Organic Matter on Methane in Offshore Sediments of Zhoushan Islands
11:40-11:55	B468	Yuan Lin	Distinct Rheological Behavior of Clay Sediment Containing Gas Bubbles at Different Initial Pore Water Pressures
11:55-12:10	B441	Cong Hu	In Situ Observation of the Correlation Between Hydrodynamics and Marine Shallow Gas Emission

Sunday, Sept. 24-Afternoon

Theme #06 Session #06

Marine Engineering Geology, Marine Geoenvironment and Disasters -3rd International Symposium on Marine Engineering Geology (ISMEG 2023)>Marine Carbon Dioxide Geological Storage and Shallow Gas Emission: Monitoring,Risk Evaluation and Mechanism

Venue: Crystal Hall 6 **Moderator: Qingping Li & Xiaolei Liu**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B373**	**Thian Lai Goh** **Invited**	**CO_2 Sequestration Monitoring : AVO Modelling for Application of Seismic Monitoring in Measurement, Monitoring and Verification (MMV) Project**
13:40-14:00	**B361**	**Jianghui Li** **Invited**	**Acoustical and Chemical Strategies for Environmental Monitoring of Marine Carbon Storage**
14:00-14:15	B389	Han Ge	Design of Multi-Sensor Integrated System for Long-Term Monitoring of CO_2 Sequestration Reservoir in Seabed
14:15-14:30	B698	Zhihan Fan	Characteristics and Monitoring Plan in the Atmosphere of CO_2 Leakage from CCS Projects
14:30-14:45	B692	Yufa He	Research on Acoustic Wave Wireless Transmission Technology for Monitoring Parameters of Marine Carbon Storage
14:45-15:00	B459	Lanlan Jiang	Strain Response Characteristics of Sandstone Induced by Pore Fluid Migration Using Distributed Fiber Optic Strain Sensing
15:00-15:15	B606	Chaoqi Zhu	Discovery of the Gas Plume in the Pearl River Mouth Basin of South China Sea and Its Implications: Pb Seep
15:15-15:30	B632	Xueqing Zhou	Evaluation of the CO_2 Hydrate Storage Potential in the Qiongdongnan Basin
15:30-15:50			**Coffee Break**

Theme #06 Session #02

Marine Engineering Geology, Marine Geoenvironment and Disasters -3rd International Symposium on Marine Engineering Geology (ISMEG 2023)>Recent Development on Submarine Landslide and Its Hazard Chains

Venue: Crystal Hall 6 **Moderator: Dong Wang & Ning Fan**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**B315**	**Tingkai Nian** **Invited**	**Fluid-Solid Coupling Simulation of Submarine Landslide Movement Process and Its Impact on Deepwater Pipelines**
16:10-16:30	**B484**	**Youkou Dong** **Invited**	**Application of A Parallelised the Material Point Method Code on Simulation of Submarine Landslide**
16:30-16:45	B191	Wei Li	Quantitative and Geomorphologic Parameterization of Megaclasts within Mass-Transport Complexes, Offshore Taranaki Basin, New Zealand
16:45-17:00	B229	Xuesheng Qian	New Insights Into Quantifying the Stable Impact Forces of a Submarine Debris Flow on A Pipeline
17:00-17:15	B440	Xingsen Guo	Enhancing Susceptibility Assessment for Wave-Induced Liquefaction: Case Study in the Chengdao Area
17:15-17:30	B323	Zhipeng Zhu	Catastrophic Submarine Landslides with Non-Shallow Shear Band Propagation
17:30-17:45	B599	Weichao Liu	Experimental Investigation on the Shear Strength Variation of Submarine Mass Wasting During Motion
17:45-18:00	B95	Ning Fan	Extreme Load Effect of Submarine Pipelines Encountered Landslide Hazards

Technical Schedule

Sunday, Sept. 24-Morning

Theme #05 Session #04

Active Tectonics, Geomorphology and Geological Hazards

>Tectonics, Surface Processes, and Geohazards

Venue: Wuhou Hall **Moderator: Jing Liu & Basanta Raj Adhikari**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B765**	**Yueren Xu** **Invited**	**High-Spatial-Resolution Satellite/Aerial Images to Mapping the Distribution of Soil Liquefaction Triggered by Several Recent Strong Earthquakes and Its Failure Characteristics**
08:40-08:55	B1	Cong Li	Study on Fracture Propagation of Syndepositional Ground Fissures Under Rapid Activity
08:55-09:10	B683	Jinglei Yang	Seismological Analysis of the Hydrodynamics of Mountain Rivers
09:10-09:25	B534	Gulian Xing	Applicability Analysis of Sentinel-1a Sbas-InSAR Based on Gnss Data in Landslide Deformation Monitoring within Mountainous Regions Influenced by Strong Earthquakes in Sichuan, China
09:25-09:40	B139	Zhandong Su	Study of Rupture Characteristics and Fracture Activity in the Strike-Slip Fracture Model
09:40-09:55	B807	Sanshao Ren	A New Type of Sliding Zone Soil and Its Severe Effect on the Formation of Giant Landslides in the Jinsha River Tectonic Suture Zone, China
09:55-10:10	23	Shenghua Cui	Earthquake-Induced Landslide Erosion Coupled to Tectonics and River incision, and Effects of Ground Motion on Coupled Patterns
10:10-10:25	B839	Majid Khan	A Holistic Geophysical Approach for Predicting Induced-Seismic Deformation and Disasters in SIETCS Mines
10:25-10:45			**Coffee Break**

Theme #05 Session #04

Active Tectonics, Geomorphology and Geological Hazards

>Tectonics, Surface Processes, and Geohazards

Venue: Wuhou Hall **Moderator: Weiming Liu & Yueren Xu**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B748**	**Basanta Raj Adhikari** **Invited**	**Understanding of Cascading Hazards for Sustainable Risk Reduction in the Nepal Himalaya**
11:05-11:20	570	Wenhui Li	Shaking Table Tests for Seismic Responses and Shattering Failure Mechanisms of Bedding Rock Slopes with Bench Landforms
11:20-11:35	B272	Yanlian Zhou	Transient Response After River Damming in Min and Dadu Rivers
11:35-11:50	B410	Hao Ma	Deep-seated toppling Deformations of Rock Slopes in Western China: Characteristics, Conditioning Factors, and Evolution

Sunday, Sept. 24-Afternoon

Theme #12 Session #01
Young Engineering Geologist Afternoon
>Mitigating Climate-Induced Geohazards in Vulnerable Hotspots

Venue: Wuhou Hall **Moderator: Jie Dou & Yunus Ali**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**624**	**Tümay Kadakci Koca** **Invited**	**Geotechnical Properties of Burned Soils: A Case Study of A Pine-Forest Fire in Southwestern Türkiye**
13:40-14:00	**B402**	**Alejandro Celli** **Invited**	**Tsunamis and Climate Change: Orcadas Argentinian Base, Laurie Island, South Orkney, Antarctica**
14:00-14:15	B917	Zongxing Zou	Effect of Deep Drainage on Controlling Reservoir Landslides
14:15-14:30	179	Zilin Xiang	Towards Synergistic AI-Driven Ensemble Framework for Automatic Post-Earthquake Landslide Recognition & Susceptibility Assessment
14:30-14:45	649	Xiuzi Jiang	Study on the Strength Characteristics of Granite Residual Soil Under Acidic Wetting-Drying Cycles
14:45-15:00	B358	Tao Li	Hazard Assessment of Landslides Induced by Extreme Rainfall: A Case Study in Luhe County, Guangdong Province, China
15:00-15:15	B376	Jingjing Sun	Origin Tracing of New Landslide Inventory Triggered by the 2017 Jiuzhaigou Earthquake
15:15-15:30	B397	Qinxia Wang	The Operation Practice of Wechat official Accounts for Emergency and Disaster Reduction Science
15:30-15:45	B465	Shuaixing Yan	On the Composite Energy-Dissipating Device of Bridge Pier Against Rockfall: Experiments, Mechanism and Theory
15:45-15:50			**Coffee Break**

Theme #12 Session #01
Young Engineering Geologist Afternoon
>Mitigating Climate-Induced Geohazards in Vulnerable Hotspots

Venue: Wuhou Hall **Moderator: Jiawen Zhou & Linfeng Fan**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**B34**	**Jie Dou** **Invited**	**Advancing Reservoir Landslide Stability Assessment via Multi-Sar and Airborne Lidar Observations in the Daping Landslide Group, Three Gorges Reservoir Area, China**
16:10-16:30	**B362**	**Chenchen Xie** **Invited**	**Analysis of the Development Regularity of Rainfall-Induced Landslides in Jiexi County, Guangdong**
16:30-16:45	B407	Zhaoning Chen	Scenario-Based Local Tsunami Hazard Assessment for Xiamen City, Fujian Province, China
16:45-17:00	B514	Juan Du	Regional Early Warning Model for Rainfall Induced Landslide Based on Slope Unit in Chongqing, China
17:00-17:15	B607	Junxue Ma	Reconstruction of Catastrophic Outburst Floods of Landslide-Dammed Lakes: A Case Study in the Upper Minjiang River, Eastern Tibetan Plateau
17:15-17:30	B736	Wenping Gong	Rainfall-Induced Landslide Mapping Using A Semantic Segmentation Model Combined with CNN and Transformer
17:30-17:45	B918	Yang Ye	The Preliminary Study of Contact Mechanical Behavior of Rock Blocks
17:45-18:00	B636	Fushuo Gan	Global Inertial Permeability of Fractured Rocks: Establishing Determination Criteria and Exploring Its Application Implications

Technical Schedule

Sunday, Sept. 24-Morning

Theme #10 Session #06

Applied Geology for Major Engineering Projects

>Physical Modeling for Geological and Geotechnical Engineering

Venue: Gaoxin Hall **Moderator: Akira Ishikawa & Jie Zhou**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B605**	**Siau Chen Chian** **Invited**	**Centrifuge Modelling of Uplift Mechanism of Underground Structures Subject to Earthquake Induced Soil Liquefaction**
08:40-09:00	**B883**	**Honglei Sun** **Invited**	**A Novel Approach for Determining the Critical Water Content of Slurry-Soil State Based on S-Wave Response**
09:00-09:15	B835	Yanguo Zhou	Patterns of Construction-Induced Vibration and Pore Pressure Response to Vibro Replacement Stone Columns in Soft Deposit
09:15-09:30	B886	Duanyang Zhuang	Hypergravity Physical Modeling of Multi-Scale Evolution of the Geological Body in Tectonically Active Areas
09:30-09:45	204	Asli Can	Comparison of Plaxis-2D and 3D Models of Improved Ground with Deep Mixing Columns
09:45-10:00	543	Siyu Chen	Centrifuge Modeling of Plant Root Reinforcement on Slopes Under Drawdown Conditions
10:00-10:15	496	Chao Ban	Experimental Study on the Shear Strength Characteristics of Cement Soil-Concrete Interface Under Varying Scale Tests
10:15-10:30	572	Chongxi Zhao	Centrifuge Model Studies on the Load-bearing Characteristics of Geosynthetic-Reinforced Soil Abutment
10:30-10:45			**Coffee Break**

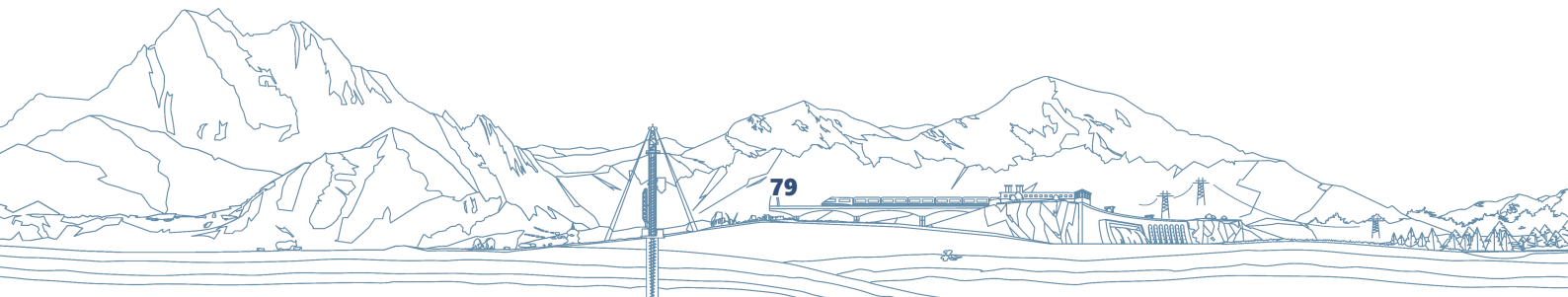
Theme #10 Session #06

Applied Geology for Major Engineering Projects

>Physical Modeling for Geological and Geotechnical Engineering

Venue: Gaoxin Hall **Moderator: Siau Chen Chian & Honglei Sun**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B776**	**Akira Ishikawa** **Invited**	**Recent Physical Modeling Approach in the Dynamic Geotechnical Field in Shimizu Corporation Japan**
11:05-11:25	**465**	**Jie Zhou** **Invited**	**Dynamic Response and Deformation Behavior of Soft Clay Under High-Speed Railway Loads**
11:25-11:40	B172	Kanchan Chaulagai	Detailed Evaluation of Barton's Q System in the Lesser and Higher Himalaya Nepal
11:40-11:55	B910	Boyang Xia	Influence of Column Types on the Failure Mode and Stability of Columns-Supported Embankments on Soft Ground
11:55-12:10	640	Yuyang Huang	Comparative Analysis of In-Situ Stress Field inversion Results of Two-Dimensional and Three-Dimensional Models of Tunnels in the Feasibility Stage



Sunday, Sept. 24-Afternoon

Theme #10 Session #05

Applied Geology for Major Engineering Projects

>Engineered Slope Stability and Control

Venue: Gaoxin Hall **Moderator: Yifeng Chen & Jianjun Zhao**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B864**	**Ning Li** **Invited**	**Key Techniques for the Analysis and Evaluation of High Rock Slopes**
13:40-14:00	**459**	**Yanjun Shang** **Invited**	**Application of Integrated Survey Methods for Site Suitability of Research Infrastructures (RIS) in China**
14:00-14:15	B870	Shibin Tang	Slope Stability Modelling Based on the Combined Finite Element and DDA Method
14:15-14:30	396	Qiyi Lai	Comparisons of Four Machine Learning Algorithms for Stability Evaluations of Highway Rock Slopes
14:30-14:45	102	Zeyao Li	The Effects of Freeze-Thaw on Particle Characteristics of Saturated Silty Sand
14:45-15:00	681	Weihua Zhao	Study on the Evolution Process of Toppling Rockfall and Their Monitoring and Warning Index
15:00-15:15	166	Qiangqiang Huang	Influence of Reinforcement Connection form on the Seismic Performance of Narrow Mechanically Stabilized Earth Walls
15:15-15:30	261	Shouren Jin	The Interaction Between Pipeline and Landslide Under Surface Surcharge
15:30-15:50			**Coffee Break**

Theme #10 Session #08

Applied Geology for Major Engineering Projects

>Hazard Prevention and Control of Groundwater System

Venue: Gaoxin Hall **Moderator: Liyuan Wei & Qiong Wu**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**B911**	**Guangqi Chen** **Invited**	**Innovative Approaches in Tunnel Stability Analysis: Integration of Finite Difference Method, Grouting Analysis, and SPH-DDA Coupling**
16:10-16:30	**593**	**Wei Zhang** **Invited**	**Key Technologies and Engineering Practice of Loess High Filling Engineering**
16:30-16:45	B912	Liping Li	Simulation of Seepage Catastrophe in Rock Mass and Groundwater System: Theory, Method and Software
16:45-17:00	B913	Nuwen Xu	Microseismic Monitoring and Safety Control of Rock Mass Hazardous in Deep Excavation
17:00-17:15	B914	Liyuan Yu	Estimation of the Representative Elementary Volume of Three-Dimensional Fracture Networks Based on Permeability and Trace Map Analysis
17:15-17:30	B915	Zhenhao Xu	Numerical Simulation of Complex Grouting Process for Water and Mud Inrush Prevention in Tunnelling
17:30-17:45	B916	Qiong Wu	Dynamic Stability of Soft and Hard Interbedded Bedding Rock Slopes Considering the Deterioration Effect of Reservoir Water Fluctuation
17:45-18:00	B152	Zhongyuan Xu	The Impact of Formation Heterogeneity on Water Discharge and Groundwater Depletion of An Excavated Tunnel
18:00-18:15	B363	Chenxi Zhao	Modelling Groundwater Drainage and Ground Subsidence Induced by the Gotthard Base Tunnel Excavation in the Swiss Alps

Technical Schedule

Sunday, Sept. 24-Morning

Theme #10 Session #07

Applied Geology for Major Engineering Projects

>Prevention and Mitigation of Geohazards in Reservoir Area

Venue: Jinjiang Hall **Moderator: Ke Ma & Zongxing Zou**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B868**	**Zhenwei Dai** **Invited**	**New Problem and Challenge of the Geological Safety of the Three Gorges Project Threatened by the Deterioration of the Hydro-Fluctuation Belt Rock Mass**
08:40-09:00	**B885**	**Ke Ma** **Invited**	**Damage Monitoring and Stability Analysis of High-Arch Dam Engineering**
09:00-09:20	**B869**	**Qinwen Tan** **Invited**	**In-Situ Mechanical Behavior of Slip Zone Soil and Landslide Deformation Mechanism: Case Study of a Massive Colluvial Landslide in the Three Gorges Reservoir Area**
09:20-09:35	120	Moritz Yueshu Lesche	Mechanisms of Reservoir Impoundment-Induced Large Deformation of the Guobu Slope at the Laxiwa Hydropower Station, China: Preliminary Insights from Remote Sensing and Numerical Modelling
09:35-09:50	164	Yaoru Liu	Mechanisms of Reservoir Impoundment-Induced Large Deformation of the Guobu Slope at the Laxiwa Hydropower Station, China: Preliminary Insights from Field Monitoring and Experimental Testing
09:50-10:05	463	Martin Dostalík	Examples of Infrastructure Objects Failure and Hazard in Terms to the Engineering Geological Model Importance – Kazbegi Municipality, Georgia
10:05-10:20	648	Fuling Zhang	Characteristics of the Spatial Distribution of Large Active Landslides in a Potential Cascade Reservoir Area Along the Upper Jinsha River
10:20-10:35	B162	Chunmei Zhou	Study on the Evolution Law of Arching Effect in Deposited Layer Landslide Under Reservoir Water Level
10:35-10:45			**Coffee Break**

Theme #01 Session #03

Engineering Geomechanics of Rock and Soil Masses

> Engineering Geology and Environment of Redbeds

Venue: Jinjiang Hall **Moderator: Ping Sun & Zhen Liu**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B222**	**Cuiying Zhou** **Invited**	**Review on the Identification and Significance of Red Beds**
11:05-11:25	**B814**	**Quentin Zhongqi Yue** **Invited**	**Refined Soil Classification and Naming System**
11:25-11:40	B826	Yiguo Xue	Mechanism and Prevention of Water Inrush in Subsea Tunnels Crossing Unfavorable Geology
11:40-11:55	B818	Jiang Li	Study and Discussion on the Mechanism of Gentle Rock Landslides in Red Bed Area of Sichuan Basin
11:55-12:10	B822	Feiyong Wang	Characteristics and Causes of the World's Longest Ground Fissure

Sunday, Sept. 24-Afternoon

Theme #12 Session #03

Young Engineering Geologist Afternoon

>Creep Characteristics of Rock and Soil Mass and Its Disaster-Induced Mechanism: Testing, Monitoring, Early Warning, and Prevention

Venue: Jinjiang Hall **Moderator: Xingang Wang & Shun Wang**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B227**	**Xuan Kang** **Invited**	**Residual State Rate Effects of Shear-Zone Soil Regulating Slow-to-Fast Transition of Catastrophic Landslides**
13:40-14:00	**B318**	**Weile Li** **Invited**	**Preliminary Analysis of the Catastrophic February 22nd 2023 Xinjing Open-Pit Mine Landslide, Inner Mongolia, China**
14:00-14:15	B107	Adebayo Olaniyi Afolabi	Geotechnical Evaluation of Gully Erosion Within Langtang Dam North Central of Nigeria Afica
14:15-14:30	B147	Daozheng Wang	Influence of Rheological Characteristics on the Fluidization Catastrophe of Tailings Flows
14:30-14:45	B310	Wei Li	A Semi-Empirical Model for Impact force of Irregular Rockfall on Granular Layer
14:45-15:00	B137	Li Luo	A Multi-Scale Study on the Deterioration Mechanism of Undisturbed Loess After Dry-Wet Cycles
15:00-15:15	B334	Liang Feng	Near-Real Time Seismic Monitoring Improves Natural Hazards Early Warning
15:15-15:30	B755	Hui Yang	Study on Collapsibility Mechanism of Malan Loess Based on Micro-Meso-Structure Analysis
15:30-15:50			**Coffee Break**

Theme #12 Session #03

Young Engineering Geologist Afternoon

>Creep Characteristics of Rock and Soil Mass and Its Disaster-Induced Mechanism: Testing, Monitoring, Early Warning, and Prevention

Venue: Jinjiang Hall **Moderator: Dongpo Wang & Xuan Kang**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**B477**	**Shun Wang** **Invited**	**Recent Advances in the Investigation of A Slow-Moving Landslide in the Three Gorges Reservoir Area, China**
16:10-16:30	**B311**	**Xingang Wang** **Invited**	**Study on the Unloading Creep Characteristics of Loess and the Mechanism of Typical Excavated Loess Landslide**
16:30-16:45	41	Jianping Li	Spatial Variability Modelling of Structural Surface Mechanical Parameters for Reliability Assessment of Rock Slopes
16:45-17:00	B503	Wenmin Yao	Microstructural Evolution of Sandstone Affected by Cyclic Wetting-Drying Process
17:00-17:15	B631	Shen Cao	Identifying the Groundwater Sources of Huangtupo Landslide in the Three Gorges Reservoir Area of China
17:15-17:30	B713	Dongxu Yang	Characteristics of Erosion and Deposition of Glacier Debris Flow in Palong Zangbu Basin, Se Tibet, China
17:30-17:45	B138	Chen Xue	Research on the Formation Mechanism of Loess-Mudstone Landslides in the Weibei Tableland Fault Active Zone of Baoji, China - Taking Wolongsi Landslide As An Example
17:45-18:00	B508	Yuzhang Bi	Research on the Blocking Effect of Baffle Structure on Rock Avalanches

Technical Schedule

Monday, Sept. 25-Morning

Theme #08 Session #02

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Recent Development of Numerical Models for Simulating Geohazard Processes and Chains of Geological Hazards

Venue: Crystal Hall 1 **Moderator: Fei Cai & Yingbin Zhang**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B602**	**Weidong Wang** **Invited**	**Stereo Vision-Based Surface Displacement Monitoring Method for Slopes**
08:40-09:00	**B313**	**Tingkai Nian** **Invited**	**Coupled DEM-CFD Method for the Disaster Chain Simulation of Landslide-River Blockage-Impulse Wave and Its Application**
09:00-09:15	B246	Hao Wu	Analysis of Landslide-Induced Wave at the Wangjiashan Slope, Baihetan Reservoir, China, by A Novel Hybrid MPM+SPH Method
09:15-09:30	B635	Mengfen Shen	A Region-Based Liquefaction Probabilistic Model: A Case Study Based on Shear Wave Velocity Test
09:30-09:45	B714	Yanbo Zhu	Tsunami Squares Modeling of the Kinetic Characteristics of the Shanyang 8.12 Catastrophic Landslide in China
09:45-10:00	674	Mingzhou Bai	Research on Radar forward Modeling for Detecting Urban Road Subgrade Disease Based on Radar
10:00-10:15	B880	Wei Shen	Three-Dimensional Mpm Modeling of Rapid Flow-like Landslides on Curved Bed: A Case Study of the Dagou Landslide in Gansu Province, China
10:15-10:30	379	Yuhao Ren	Numerical Investigation of Influence of Low Ice Friction on Mobility of Rock-Ice Avalanches
10:30-10:45			**Coffee Break**

Theme #08 Session #04

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Debris Flows: Mechanics, Monitoring, Experiments, Assessment, Prevention, and Risk Management

Venue: Crystal Hall 1 **Moderator: Xiaojun Guo & Kunting Chen**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B244**	**Dongri Song** **Invited**	**Impact Behavior of Dense Debris Flows and Relevant Time Scales in the Impact Process**
11:05-11:25	**B444**	**Kun-Ting Chen** **Invited**	**Quantitative Evaluation of Post-debris Flow River Dredging Projects: A Case Study of Fushan Creek in Taitung County, Taiwan**
11:25-11:40	B804	Rajaneesh A.	Debris Flow Path Prediction for Developing Risk Map
11:40-11:55	B299	Fucheng Lu	A Slam-Based High-resolution Full-Character Debris Flow Channel Morphological Mapping System
11:55-12:10	B51	Abd Rasid Jaapar	Large-Scale Multiple Debris Flows in Malaysia 2021-22: Data Collation, Simulation and Post-Disaster Initiatives

Monday, Sept. 25-Afternoon

Theme #08 Session #04

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Debris Flows: Mechanics, Monitoring, Experiments, Assessment, Prevention, and Risk Management

Venue: Crystal Hall 1 **Moderator: Jiawen Zhou & Ming Chang**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**687**	**Mingtao Ding** **Invited**	**Experimental Research on the Initiation of High Potential Energy Debris Flow- Case Study of the Chutou Gully, China**
13:40-14:00	**B297**	**Ming Chang** **Invited**	**Rapidly Identifying the Activity and Evolution Trend of Debris Flows After the 2022 Mw 6.8 Luding Earthquake, Western China**
14:00-14:15	B615	Kaiyang Wang	The Discussion on the Key Issues of Corrosion and Expansion Damage Resistance in Tunnels and Bridges of Saline Strata in the Geological Hazard Risk Assessment of Major Engineering Projects on the Expressways in Yunnan Mountainous Areas
14:15-14:30	580	Hao Li	Causes and Damage of the 2020 Periglacial Debris Flows at Zelunglung in the Eastern Syntaxis of Himalaya
14:30-14:45	B707	Feng Li	Multi-Scale Fiber Optic Sensing Method for Deep Deformation of High Slopes Along Railways
14:45-15:00	B515	Huicong An	Refined Forecast Research of Debris Flow in Small Catchment
15:00-15:15	B716	Chenxi Xie	Applying Modified DDA to Analyze Landslide Behavior Considering Joint Shear Strength Degradation
15:15-15:50			**Coffee Break**

Theme #08 Session #07

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Integrating Hydrologic Information into the Next Generation of Landslide Early Warning Systems

Venue: Crystal Hall 1 **Moderator: Roberto Greco & Thom Bogaard**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**B509**	**Roberto Greco** **Invited**	**Hydrometeorological Approach to Rainfall-Induced Landslide Hazard Assessment**
16:10-16:30	B573	Jiang Wu	A Method for Classifying Reservoir Bank UnIts Based on Landslide Hydraulics Initiation Mechanism
16:30-16:45	B506	Daniel Camilo	Hydrological Control of Shallow Landslide Triggering Mechanism in Pyroclastic Slopes of Campania (Italy)
16:45-17:00	B507	Pasquale Marino	Rainfall-Induced Shallow Landslides Forecasting Using 3D Hydrometeorological Thresholds
17:00-17:15	B163	Jianqi Zhuang	A Novel Prediction Method for Shallow Landslides in Loess Areas: A Case Study of the 2013 “7.25” Tianshui Sliding-Flow Landslide in Gansu Province, China
17:15-17:30	539	Minzhe Sun	Numerical Analysis of Water and Gas Migration Within a Landfill Biocover Using a Two-Phase Flow Model
17:30-17:50	**B747**	**Thom Bogaard** **Invited**	**Reflections on Remotely Sensed Hydrometeorological Monitoring and Analyses of Deep-Seated, Reactivating Landslides**

Technical Schedule

Monday, Sept. 25-Morning

Theme #01 Session #05

Engineering Geomechanics of Rock and Soil Masses

> Interface Engineering Geomechanics

Venue: Crystal Hall 2 **Moderator: Honghu Zhu & Jie Zhou**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B740**	**Honghu Zhu** **Invited**	**Development of Multivariable Monitoring Technologies of Geo-Interface**
08:40-08:55	B760	Siqi Zhang	Preliminary Study on the Structure of Clay-Water Interface Based on Molecular Dynamics
08:55-09:10	B825	Chengjun Liu	Macroscopic Behaviour and Mesoscopic Mechanism of Shear Strength Characteristics of Pile-Soil Interface Under Cyclic Loading in Offshore Wind Farm
09:10-09:25	537	Yuan Qi	Comparative Analysis of Numerical Simulation Methods for Active Earth Pressure on Rigid Retaining Walls
09:25-09:40	B108	Huan Zhang	Sandstone-Concrete Interface Transition Zone (ITZ) Damage and Debonding Micro-Mechanisms Under Freeze-Thaw
09:40-09:55	B8	Jiujiang Wu	Recent Progress in the Research of Lattice-Shaped Diaphragm Wall
09:55-10:10	B56	Jianxing Chen	Effect of Confining Pressure and Dynamic Stress Wave Orientation on Failure Mechanism of Rock-Shotcrete Interface
10:10-10:25	B702	Mingliang Zhou	Simulating Seepage Damage of Water-Rich Fault Zones in Tunnel Face Using Double Point Material Point Methods
10:25-10:45			**Coffee Break**

Theme #01 Session #05

Engineering Geomechanics of Rock and Soil Masses

> Interface Engineering Geomechanics

Venue: Crystal Hall 2 **Moderator: Jianchun Li & Boxin Wang**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B576**	**Chi Liu** **Invited**	**Dynamic Model for Water-Rock Interface of Softening of Red-Bed Soft Rock and Its Evolution Law**
11:05-11:20	B853	Yiran Zhang	Thermo-Hydro-Mechanical Shear Strength of Healing Interfaces Between Compacted the Combination of Bentonite
11:20-11:35	B592	Chao Wang	Stress Wave Transmission and Failure Characteristics of Different Weak interlayers
11:35-11:50	B852	Zeyao Li	Hydration Swelling Characteristics of Montmorillonite Quasicrystals
11:50-12:05	B478	Genlan Yang	Study on Weathering Characteristics of Chishui Red Sandstone

Monday, Sept. 25-Afternoon

Theme #01 Session #06

Engineering Geomechanics of Rock and Soil Masses

> Behavior and Treatment of Special Soil and Soft Rock

Venue: Crystal Hall 2 **Moderator: Hui'e Chen & Andrei Melnikov**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B847**	**Yonggui Chen** **Invited**	**Modeling of Water Retention Behavior of Densely Compacted Gaomiaozi Bentonite Based on Pore Structure Evolution**
13:40-14:00	**48**	**Filipe Jeremias** **Invited**	**Durability Assessment of UK and Portuguese Jurassic Mudrocks**
14:00-14:15	616	Zhenhao Fan	Quality Control and Testing Method of Soil-Rock Mixture Subgrade
14:15-14:30	B331	Ruyi Hou	Analytical Models and Solutions for Dynamic Response of the Embankment System Under Traffic Load
14:30-14:45	B413	Qinghua Wang	Mechanical Property Damage of Dry-Wet Cyclic Strain of Loess in South Tableland of Jingyang Disadvantage Research
14:45-15:00	B123	Xu Ji	Mechanical Behavior of Iron Ore Tailings Under Monotonic Loading Conditions
15:00-15:15	B436	Hanjiang Chen	Study of Engineering Properties of Cement-Stabilized Loess Contaminated with Heavy Metals
15:15-15:30	27	Ye Bin	Evolution Process of Sand Mesostructure in Liquefaction Using Centrifuge Shaking Table Tests
15:30-15:50			**Coffee Break**

Theme #01 Session #06

Engineering Geomechanics of Rock and Soil Masses

> Behavior and Treatment of Special Soil and Soft Rock

Venue: Crystal Hall 2 **Moderator: Yonggui Chen & Wanli Xie**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**364**	**Mo Xu** **Invited**	**Karst-Sandification Characteristics and Geotechnical Properties of Triassic Dolomite in Yuxi, China**
16:10-16:30	**619**	**Jianlei Zhang** **Invited**	**Numerical Study on the Liquefaction Resistance of Rectangular Closed Diaphragm Walls in Gently Sloping Liquefiable Deposits**
16:30-16:45	582	Zhiwei Xie	Experimental Study on Static and Dynamic Characteristics of Tunnel Slag As Road-Base Material
16:45-17:00	B598	Ye Chen	Experimental Study on the Mechanism of Localized Fluidization in Giant Loess Landslide Through Pore-Water Pressure Controlled Ring Shear Tests
17:00-17:15	B848	Yucheng Li	Probing the Intrinsic Nanoscale Mechanical Properties of Montmorillonite Tactoids
17:15-17:30	632	Futian Zhao	Dynamic Mechanical Properties of Unsaturated Red Clay Subjected to Impact Loading
17:30-17:45	B274	Shixiong Li	Study on the Influence of Stress Path on Mechanical Properties of Saturated Soft
17:45-18:00	617	Xu Ji	Influence of Grading on the Undrained Flow Instability of Saturated Loess Soil

Technical Schedule

Monday, Sept. 25-Morning

Theme #07 Session #02

Deep Earth Resource and Energy Exploitation

> Engineering Geology for Deep Mining and Energy Storage

Venue: Crystal Hall 3 **Moderator: Xiangming Jiang & Wanghua Sui**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**149**	**Wanghua Sui** **Invited**	**On the Active and Passive Engineering Prevention and Control Methods for Groundwater Inrush in Coal Mines**
08:40-08:55	73	Wenbo Pan	Earthquake-Induced Shear Failure in 3D Fracture Systems with An Application for Long-Term Safety Assessment of Nuclear Waste Repositories
08:55-09:10	626	Chang Zhou	Mechanics Damage Characteristics of Resin Anchored Bolts with Different Materials Under High Temperature
09:10-09:25	233	Dingyang Zhang	Coupled Thermal-Hydro-Mechanical Effect on Cement Slurry Grouting Propagation in A Single Fracture with Flowing Water
09:25-09:40	176	Shichong Yuan	Using Grout Curtain to Cut-Off Regional Groudwater in Maoping Lead-Zinc Mine, SW China
09:40-09:55	B207	Liang He	Effect of Hydration on Pore Structure and Physical Properties of Permian Basalt and Tuff in Sichuan Basin During Pressurized Imbibition
09:55-10:10	B884	Zhenhua Li	Key Technology of High Efficient Mining and Water Resource Transfer-Storage-Utilization in Karst Area of Western Guizhou
10:10-10:25	167	Weifeng Yang	Research on Dynamic Identification Technology of Roof Water Inrush Hazard Sources and Risk Evaluation During Coal Seam Mining
10:25-10:45			**Coffee Break**

Theme #07 Session #02

Deep Earth Resource and Energy Exploitation

> Engineering Geology for Deep Mining and Energy Storage

Venue: Crystal Hall 3 **Moderator: Bin Zhang & Nengxiong Xu**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**553**	**Xiangming Jiang** **Invited**	**Mechanism of Water Inrush in Deep Coal Mining Based on Dark Structure**
11:05-11:20	B196	Dandan Wang	Dynamic Risk Assessment of Floor Water Inrush Based on the Improved Dynamic Variable Weight and Unascertained Measure Theory Model
11:20-11:35	B233	Yankun Liang	Experimental Study on the Diffusion Law of Silica-Sol Grouting in Pore-Fracture Dual Media
11:35-11:50	B316	Wei Yao	A Numerical Study on the Dynamic Mechanical Response and Permeability Evolution of Deep Rocks Under Fluid-Solid Coupling Loads
11:50-12:05	285	Lin Huang	Elastoplastic Closure Characteristics of Dislocated Sandstone Fracture Subjected to Normal Loads

Monday, Sept. 25-Afternoon

Theme #07 Session #03

Deep Earth Resource and Energy Exploitation

> Exploration and Exploitation of Medium-deep Geothermal Resources

Venue: Crystal Hall 3 **Moderator: Guiling Wang & Wei Qiao**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**342**	**Kurosch Thuro** **Invited**	**Geomechanical Investigations in the North Alpine foreland Basin, SE Germany**
13:40-13:55	B435	Lei Wang	Modeling of Depleted Shale Gas Reservoir for Hydrogen Storage Considering Dissolution and Diffusion
13:55-14:10	B385	Ling Wang	The Performance of Aquifer Thermal Energy Storage System in Fractured Aquifers
14:10-14:25	253	Kai Gu	Thermophysics of Deep Rock Revealed by Actively Heated Fiber Optics Based Thermal Response Test
14:25-14:40	630	Fengqiang Gong	Weakening Laws of Rock Mass Parameters in the Excavation Damage Zone of Deep Rock Tunnels
14:40-14:55	B355	Shaozheng Wang	Thermal Reservoir Characteristics and Deep Geothermal Resource Evaluation in the Gaoqing-Huagou Area of Jiyang Depression Based on 3D Geological Modeling
14:55-15:10	B590	Jie Liu	How Late Mesozoic Trans-Crustal Magma Affected and Changed the Lithospheric Rheology and Thermal Structure of the North China Craton
15:10-15:25	B693	Xiao Yan	The Development of Unified Pipe-Interface Element Method and Its Application on Hydraulic Fracturing
15:25-15:50			**Coffee Break**

Theme #01 Session #08

Engineering Geomechanics of Rock and Soil Masses

> Unsaturated Soil Mechanics

Venue: Crystal Hall 3 **Moderator: Lingwei Kong & Zhiqing Li**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**B919**	**Ling Xu** **Invited**	**Development of A New In-Situ Interface Shear Box Test Apparatus and Its Applications**
16:10-16:25	B169	Daoju Ren	A Modified Predictive Model for Resilient Modulus of Unsaturated Subgrade Soil with Consideration of Hysteresis
16:25-16:40	B671	Pengju Qin	Development and Application of Tdr Probes for Monitoring Moisture of Unsaturated Clay
16:40-16:55	B493	Lina Ma	Investigation on the Deformation and Failure Patterns of Loess Cut Slope Based on the Unsaturated Triaxial Test in Yan'an, China
16:55-17:10	234	Zhangrong Liu	Characterization and Simulation of Swelling Pressure Kinetics for Compacted Bentonite Hydrated by Alkaline Solutions
17:10-17:25	B650	Xinsheng Wei	Exploring the Volume Dependent-Water Retention and Hydro-Mechanical Coupling for Undisturbed Silty Clay: An Experimental and Modelling Research
17:25-17:40	B281	Liang Sun	Influence of Biochar on the Soil-Water Retention Curve of Compacted Loess
17:40-17:55	B372	Mengmeng Zhang	The Strength of Unsaturated Loess Based on Conventional Slow Shear Tests

Technical Schedule

Monday, Sept. 25-Morning

Theme #08 Session #03

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Debris Flow Dynamic Process and Its Effects on Landform

Venue: Crystal Hall 4 **Moderator: Alessandro Pasuto**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B622**	**Shiva P. Pudasaini** **Invited**	**A Dynamic Earthflow Model**
08:40-09:00	**B238**	**Gordon G.D. Zhou** **Invited**	**Modelling the Vertical Size Sorting in Debris Flows**
09:00-09:15	B223	Kong Yong	Quantifying Mechanisms in Geophysical Flow Mitigations Through High-Fidelity Multiphase Multiway Simulations
09:15-09:30	B197	Zaohui Zhang	Shear Viscosity Scaling of Granular Suspensions Across Dilute to Dense Regimes
09:30-09:45	B235	Xueqiang Lu	Non-Uniform Breach Evolution of Landslide Dams During Overtopping Failure
09:45-10:00	B234	Shuai Li	3D Modeling of Baige Landslide Propagation Using Smoothed Particle Hydrodynamics (SPH)
10:00-10:15	B611	Parameshwari Kattel	Analytical Models for Coefficient of Impact Pressure and Mobilization Length, and Their Validation
10:15-10:30	B375	Shaofeng Chai	Slipping Characteristics and Sliding Mechanism of Loess Liquefaction Triggered Landslides of Shibeiyuan: Insights from Shaking Table Test
10:30-10:45			**Coffee Break**

Theme #01 Session #01

Engineering Geomechanics of Rock and Soil Masses

>Ground Property Characterization from In-Situ Tests

Venue: Crystal Hall 4 **Moderator: Guojun Cai & Ning Zhang**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B920**	**Songyu Liu** **Invited**	**CPT/CPTU-Based Design and Practice in Geotechnical Engineering in China**
11:05-11:20	B80	Anish Khanal	A Study of Soil Characteristics Using Ambient Vibration Measurement at Hetauda, Bagmati Province, Central Nepal
11:20-11:35	246	Lu Zhang	New Applications of Field Permeability Tests in Single Observation Well Or Borehole
11:35-11:50	B518	Fangcui Liu	In-Situ Horizontal Extrusion Shear Test of Herbaceous Root-Soil with Different Root Types
11:50-12:05	362	Jialun Niu	Visualized Experimental Study on the Initiation and Propagation of Hydraulic Crack in Granite Under True Triaxial Compression

Monday, Sept. 25-Afternoon

Theme #08 Session #09

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Chains of Geohazards: Mechanism, Modelling and Prediction

Venue: Crystal Hall 4 **Moderator: Ranjan Kumar Dahal & Chris Massey**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B559**	**Chris Massey Invited**	**Earthquake-Induced Landscape Dynamics: the 14 November 2016 Mw 7.8 Kaikōura Earthquake, New Zealand**
13:40-14:00	**B113**	**Ranjan Kumar Dahal Invited**	**High-Altitude Geomorphology-Related Geodisasters in Nepal**
14:00-14:15	B52	Kaushal Raj Gnyawali	Numerical Design Method for Deflection Berms to Mitigate Post-Wildfire Debris Flow Hazards in Small Watersheds
14:15-14:30	B700	Kongming Yan	Failure Mechanism and Runout Characteristics of Rock Landslides in Recent Case Studies
14:30-14:45	B367	Zhaoyue Yu	Characteristics and Mechanism of the October 5th 2021 Landslide-Debris Flow Disaster Chain at Hanping Village, Shaanxi Province, China
14:45-15:00	B173	Linlu Dong	Damage Evolution Characteristics and Failure Mechanism of Roof Arch Surrounding Rock Mass of Deep Underground Powerhouse Subjected to Excavation
15:00-15:15	566	Yunsheng Wang	Insights into A Large-Prone Area in the Eastern Margin of the Tibetan Plateau, China-A Case Study Along the Danba Reach of the Dadu River
15:15-15:30	B889	Ran Tang	Formation and Evolution Mechanism of Sub-Horizontal Translational Landslides in Red Beds of Sichuan Basin
15:30-15:50			**Coffee Break**

Theme #08 Session #09

Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

>Chains of Geohazards: Mechanism, Modelling and Prediction

Venue: Crystal Hall 4 **Moderator: Tolga Görüm & Cees Van Westen**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**B871**	**Tolga Gorum Invited**	**Landslides Triggered by the February 6, 2023, Turkey Earthquake Sequence**
16:10-16:30	**B174**	**Constantinos Loupasakis Invited**	**Contradictive Mining Geohazards at the Perimeter of Open Pit Coal Mines. the Case of the Amyntaio Coal Mine, Greece**
16:30-16:45	B455	Haoyu Lin	Shaking Table Tests on the Dynamic Response of A Municipal Solid Waste Landfill with A Composite Liner System Under Earthquake
16:45-17:00	B43	James Bachat	On Detection of Active Ground Distress indicators Using Multispectral Sensors for Landslide Forecasting
17:00-17:15	B249	Zhiyan Zhao	Study on Saturated Hydraulic Conductivity and Its Variability Considering Deposition Time Effect
17:15-17:30	727	Jiazhan Ren	Critical Physical and Hydraulic Condition for Fine Grains Migration, Deposition and Self-Dredging in Seepage Erosion of Gravel Soil
17:30-17:45	559	Xubiao Deng	Engineering Geo-Mechanics System for Coal and Gas Outbursts
17:45-18:00	B159	Xiang Zhou	Evaluation and Comparative Analysis of Surrounding Rock Quality of Underground Powerhouse of Jinchuan Hydropower Station

Technical Schedule

Monday, Sept. 25-Morning

Theme #04 Session #02

Geoenvironmental Engineering and Ecological Solutions

>Sustainable Remediation of Contaminated Sites

Venue: Crystal Hall 5 **Moderator: Yanjun Du & Zhengtao Shen**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B921**	**Yanjun Du** **Invited**	**Exposure to Organic Acids Changes Hydraulic Performance of Soil-Bentonite Backfill in Cutoff Walls: How and Why?**
08:40-09:00	**B391**	**Zhengtao Shen** **Invited**	**Enhancing Long-Term Effectiveness of Heavy Metal Remediation Based on Accelerated Ageing Assessment**
09:00-09:15	B394	Yuping Li	Experimental Study on the Thermal Remediation of total Petroleum Hydrocarbon Contaminated Soils
09:15-09:30	295	Irina Galitskaya	Study of Contaminated Soils as A Secondary Source of Groundwater Contamination at the Sites of MSW Landfills
09:30-09:45	B536	Zhanbo Cheng	Geotechnical Properties and Environmental Characteristics of Biopolymer-Treated Mixed Waste Material
09:45-10:00	B875	Xiaolu Tang	Contribution of Soil Microbial Necromass to Soil Organic Carbon After Vegetation Restoration in A Desertification Region in the Tibet Plateau
10:00-10:15	708	Yukun Geng	Experimental Study on the Relationship Between Unconfined Compressive Strength and Resistivity of Cured Diesel-Contaminated Soil
10:15-10:30	B780	Jining Zhang	Investigations Into the Rheology and Early-Age Properties of Gypsum-Based Materials With Different Sticky Rice Contents and Its Engineering Applications

10:30-10:45 **Coffee Break**

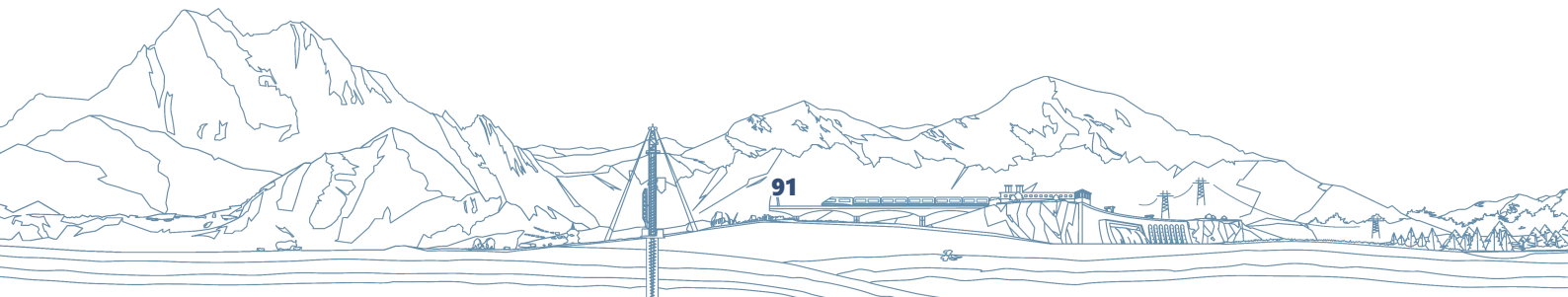
Theme #04 Session #02

Geoenvironmental Engineering and Ecological Solutions

>Sustainable Remediation of Contaminated Sites

Venue: Crystal Hall 5 **Moderator: Fei Wang & Long Xu**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B709**	**Fei Wang** **Invited**	**The Mechanism and Time Related Performance of PRB Treated Chlorinated Hydrocarbons Contaminated Underground Wate**
11:05-11:25	**B276**	**Long Xu** **Invited**	**Air Sparging Remediation of VOCs Contaminated Low-Permeability Soil Based on Pressure Gradient Control**
11:25-11:40	540	Minghui Xu	Performance of Soil Covers for Mitigation of Methane Emission from A Municipal Solid Waste Landfill
11:40-11:55	B22	Zhong-Fei Xue	Experimental Study on Lead Remediation Using a Biomineralisation Approach
11:55-12:10	B257	Xin Zhang	The Migration of Nuclides in the Coupled Vadose Zone-Groundwater System at a Proposed Spent Fuel Reprocessing Site



Monday, Sept. 25-Afternoon

Theme #04 Session #05

Geoenvironmental Engineering and Ecological Solutions

>Solid Waste Landfills and Relevant Environmental Geotechnics

Venue: Crystal Hall 5 **Moderator: Yan Yu & Shuai Zhang**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B25**	**Jiying Fan** **Invited**	**Piping Through a Defective Geomembrane Liner in Tailings Storage Facilities**
13:40-13:55	152	Wenxiangyu Hu	Modelling of Leachate Leakage and Contaminant Migration Through Municipal Solid Waste Landfill Liner Systems
13:55-14:10	B706	Yuping Li	Engineering Properties of Rural Solid Waste in China
14:10-14:25	B789	Chuanxiang Qu	Probabilistic Analysis and Field Monitoring of A Sustainable Landfill Cover Considering Stress-Dependent Water Retention
14:25-14:40	219	Jingyu Peng	The Pollution of Source, Pathway, and Downstream of the Pyritic Waste Rock Site—A Case Study
14:40-14:55	490	Yingyue Han	Distribution Characteristic of Contaminants in Subsurface Soil at Phosphogypsum Site, A Case Study in China
14:55-15:10	B470	Shuangke Fei	Field Tracer Tests for Leakage Channel Detection in A Large-Scale Landfill in Hangzhou, China
15:10-15:25	B566	Peifu Cai	Mechanism and Numerical Modeling of Leachate Collection System Clogging in Landfills in China
15:25-15:50			**Coffee Break**

Theme #04 Session #05

Geoenvironmental Engineering and Ecological Solutions

>Solid Waste Landfills and Relevant Environmental Geotechnics

Venue: Crystal Hall 5 **Moderator: Yan Yu & Dongri Song**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**B149**	**Pengcheng Ma** **Invited**	**A Constitutive Model for Municipal Solid Waste Incorporating Biodegradation and Its Application**
16:10-16:30	**B922**	**Miao Jing** **Invited**	**Development and Geotechnical Applications of An Open-Source Thermo-Hydro-Mechanical-Chemical Modelling Platform Opengeosys (OGS)**
16:30-16:45	348	Chenxu Su	Forensic Investigation and Analysis of the 27 March 2022 Tailings Dam Failure in Jiaokou County, Shanxi Province, China
16:45-17:00	B882	Cong Dai	Detecting the Spatiotemporal Evolution Characteristics of Yongping Copper Mine Using Remote Sensing Technology
17:00-17:15	B766	Yi Bian	Bio-Immobilization of Heavy Metals in Solid Waste Landfill Humus Soil Using Enzyme Induced Carbonate Precipitation Method
17:15-17:30	198	Yiling Zhou	Resilience Assessment of Municipal Solid Waste Landfills Based on Groundwater Pollution
17:30-17:45	612	Kai Liu	Life-Cycle Carbon Emissions from the Municipal Solid Waste (MSW) Landfill, A Case Study in China
17:45-18:00	222	Shuairong Wang	Quantitative Risk Assessment of Human to Landfill Considering Spatially Varying Soil

Technical Schedule

Monday, Sept. 25-Morning

Theme #06 Session #03

Marine Engineering Geology, Marine Geo-environment and Disasters -3rd International Symposium on Marine Engineering Geology (ISMEG 2023)>Coastal Engineering Environment

Venue: Crystal Hall 6 **Moderator: Shaotong Zhang & Bradley A. Weymer**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B64**	**Xinyi Kang** **Invited**	**Riverine Substance Transport Dynamics in the Bohai Sea**
08:40-09:00	**B613**	**Yuan Li** **Invited**	**Equilibrium Configurations of Sandy-muddy Transitional Beaches on South China Coasts**
09:00-09:15	B65	Ruohan Sun	Modeling Study of the Nutrient and Phytoplankton Variability in the Bohai Sea, China
09:15-09:30	230	Denghui Ma	Investigation of Pore Characteristics in Coral Sand Particles
09:30-09:45	188	Fugang Gou	Statistics and Analysis of Compression Index of Marine Soft Soil in Lianyungang, China
09:45-10:00	307	Kanmin Shen	Assessment of the Engineering Properties for Mud Through CPT and VST in Hengqin Coast
10:00-10:15	726	Zhendi Yang	Numerical Study of Wave Induced Seabed Response with Sand Ripples
10:15-10:30	B426	Jianwei Niu	Sediment Stratification Affected by Wave-Induced Seabed Responses
10:30-10:45			**Coffee Break**

Theme #06 Session #03

Marine Engineering Geology, Marine Geo-environment and Disasters -3rd International Symposium on Marine Engineering Geology (ISMEG 2023)>Coastal Engineering Environment

Venue: Crystal Hall 6 **Moderator: Chi Zhang & Xinyi Kang**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B689**	**Chenghao Wang** **Invited**	**Research on the Dynamic Mechanism of the Sediment Transport Around Shandong Peninsula**
11:05-11:25	**B351**	**Shaotong Zhang** **Invited**	**Optimization of Erosion Rates and Settling Velocities from Measured Suspended Sediment Concentration Profiles with an Unsteady 1DV Model**
11:25-11:40	B364	Jiaxin Deng	Solving the 1DV Suspended Sediment Mixing Equation with Arbitrary Eddy Diffusivity Profiles Using Normalized Physics-Informed Neural Networks
11:40-11:55	B353	Zixi Zhao	Estimation of Sediment Transport Parameters from Field-measured Suspended Fine Concentration Time Series with a New Conceptual Model
11:55-12:10	B696	Dake Chen	Erosion Threshold of Mud and Sand-Mud Mixtures

Monday, Sept. 25-Afternoon

Theme #06 Session #04

Marine Engineering Geology, Marine Geo-environment and Disasters -3rd International Symposium on Marine Engineering Geology (ISMEG 2023)>Seabed Process in Marine Environments and Engineering Geological Disasters

Venue: Crystal Hall 6 **Moderator: Zhen Guo & Lin Cui**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B524**	**Chen Wang** **Invited**	**Investigation on Scour Around Offshore Wind Turbine Foundations From the View of Geotechnical Engineering**
13:40-14:00	**B923**	**Zhen Guo** **Invited**	**Generation Mechanism of Ocean-Wave-Induced Microseisms**
14:00-14:15	B924	Dianlei Feng	Recent Development of Numerical Modeling of Environmental Hydraulic Problems
14:15-14:30	B336	Can Yi	Simulation of Three-Dimensional Soil-Water Interaction Based on A GPU-Accelerated SPH Model
14:30-14:45	B687	Shuyu Zhang	Formation Mechanism and Movement Characteristics of the Storm-Induced Fluid Mud Layer in the Abandoned Yellow River Delta
14:45-15:00	B342	Tihan Fu	Numerical Modeling of Green Water Overtopping with the SPH Method
15:00-15:15	B720	Hong Zhang	Recent Progress in Assessing Subsidence in the Estuary Delta System Using InSAR Technique
15:30-15:50			**Coffee Break**

Theme #04 Session #03

Geoenvironmental Engineering and Ecological Solutions

>NbS (Nature-based Solution) for Environmental Protection and Ecological Restoration

Venue: Crystal Hall 6 **Moderator: Xiaolu Tang & Basanta Raj Adhikari**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**B366**	**Xiasong Hu** **Invited**	**Impacts of Alpine Pasture Degradation on Soil Physical-Mechanical Properties:a Case Study of Rooted Soil in Henan County, Northeastern Qinghai-Tibet Plateau, China**
16:10-16:30	**B217**	**Richard Haynes** **Invited**	**Engineered Soils - A Geoenvironmental Solution for the Bulk Uses of industrial Wastes**
16:30-16:45	473	Ya Chu	Effect of Heavy Metal Ions on the Engineering Behavior Development of Chinese Clays
16:45-17:00	483	Mengnan Liu	In Situ Monitoring and Predicting the Height of Water-conducting Fractured Zone of Jurassic Coal Seam in Northwestern China
17:00-17:15	B317	Yukun Ji	Thermal insulation of Phenolic Resin Modified Fly Ash Geopolymer
17:15-17:30	B392	Mingchang Hei	Study on Reinforcement Mechanism of Vegetated Slopes with Root System and Vertical Geotextile Belts
17:30-17:45	B438	Tao Fu	Water Retention Evaluation of Slab Trench on Rocky Desertification Slope in A Karst Area of Southwest China
17:45-18:00	B794	Basanta Raj Adhikari	Understanding of Eco-safe Roadside Slope Stability - How Sensitive Are the Slope Stability Parameters?

Technical Schedule

Monday, Sept. 25-Morning

Theme #05 Session #05

Active Tectonics, Geomorphology and Geological Hazards

>Mechanism, Evolution, and Prevention of Geological Hazards Caused by Earthquakes

Venue: Wuhou Hall **Moderator: Yongbo Tie & Andrian Batugin**

Time	Paper ID	Speaker	Paper Title
08:20-08:40	**B925**	**Ningsheng Chen** Invited	**The Prediction and Warning of Debris Flow Hazards in China**
08:40-08:55	B130	Zhijie Ning	Study on Evaluation Index Treatment Method of Rock Slope Stability Prediction Model
08:55-09:10	B92	Yanchao Gao	Key Problems and Solutions on Debris Flow Control Engineering After Wenchuan Earthquake in China
09:10-09:25	B544	Alejandra Serey	Landslides During Strong Shallow Crustal and Megathrust Earthquakes: Controlling Factors and Conceptual Hazard Geomodels
09:25-09:40	625	Fei Zhao	Reinforcement Mechanism of New Flexible Combined Piles (FCP) for Rocky Slopes Under Earthquake
09:40-09:55	B76	Jiayan Lu	Evaluation of Geological Hazard Susceptibility Based on Red Bed Rock Mass in Sichuan Province
09:55-10:10	620	Maomao Liu	Analysis of Seismic Dynamic Response and Failure Mode of Bedding Rock Slopes Based on the DEM-FDM Method
10:10-10:25	B101	Yang Chang	Analysis of Debris Flow Prevention Effect and Risk Prediction Based on Numerical Simulation— Taking the 2023 "6-26" Xinqiao Debris Flow As An Case Study
10:25-10:45			**Coffee Break**

Theme #05 Session #05

Active Tectonics, Geomorphology and Geological Hazards

>Mechanism, Evolution, and Prevention of Geological Hazards Caused by Earthquakes

Venue: Wuhou Hall **Moderator: Alejandra Serey & Ningsheng Chen**

Time	Paper ID	Speaker	Paper Title
10:45-11:05	**B88**	**Yongbo Tie** Invited	**Identification, Mechanism and Prevention of Debris Flow from Glacial Till in Southeast Qinghai-Tibet Plateau**
11:05-11:20	B753	Andrian Batugin	Critically Stressed State of the Earth's Crust and Induced Geohazards
11:20-11:35	B67	Xianzheng Zhang	Dynamic Susceptibility Assessment of Post-Seismic Debris Flow Hazard, Wenchuan County, Sichuan, China
11:35-11:50	B505	Guobing Liang	Effectiveness Test and Time-Frequency Analysis of Short-impending Prediction of Strong Earthquakes Based on Dynamic Gravity Information
11:50-12:05	B86	Jiazhu Wang	A Framework for Identifying the Onset of Landslide Acceleration Based on the Exponential Moving Average (EMA)

Monday, Sept. 25-Afternoon

Theme #10 Session #01

Applied Geology for Major Engineering Projects

>Geological Problems and Countermeasures in Transportation Tunnel Engineering

Venue: Wuhou Hall **Moderator: Shuqi Ma & Wendy Zhou**

Time	Paper ID	Speaker	Paper Title
13:20-13:40	**B11**	**Yiguo Xue** **Invited**	**Main Unfavorable Geological Conditions and Engineering Geological Problems Along Sichuan-Tibet Railway**
13:40-14:00	**241**	**Stephen Wilkinson** **Invited**	**Corrosion Resistance of Steel Fibre Reinforced Tunnels Subject to Stray Current**
14:00-14:15	203	Candan Gökçeoğlu	Tunnel Design in the Improved Ground with Deep Mixing Columns
14:15-14:30	B926	Guowen Xu	The Large Deformation Mechanism of Soft Layered Rock Tunnels and Its Controlling Measures
14:30-14:45	665	Weimeng Zhang	Influence of Rock Joints on Rock-Breaking Efficiency of TBM with A Double-Edge Disc Cutter
14:45-15:00	B802	Junlin Zhu	Study on the Influence of Surrounding Rock Blasting in TBM Unblocking Technology on Supporting Structures
15:00-15:15	B927	Shuqi Ma	Research on Slab Staggering Detection of Duct Piece Based on Azure Kinect Deep Point Cloud
15:15-15:30	B928	Yao Hu	Deformation Response of Shield Construction of Metro Stacked Tunnels in Soft Soil Area
15:30-15:50			**Coffee Break**

Theme #10 Session #02

Applied Geology for Major Engineering Projects

>Large Deformation in Squeezing or Intensively Fractured Rocks

Venue: Wuhou Hall **Moderator: Xingqiang Chen & Shyam Lal Kapil**

Time	Paper ID	Speaker	Paper Title
15:50-16:10	**62**	**Qing Yuan** **Invited**	**Research on the Mechanism and Control of Large Deformation of Shallow Water-Rich and Soft Rock Tunnel**
16:10-16:30	**326**	**Xingqiang Chen** **Invited**	**In-Situ Stress Measurement and Estimation in Thrusting Strike-Slip Fault Zone and Its Significance for Evaluation of the Large Deformation in Underground Engineering**
16:30-16:45	B327	Keqi Liu	Large Deformation Classification Method and Deformation Characteristic Analysis of High Ground Stress Carbonaceous Slate Tunnel
16:45-17:00	293	Yuan Qian	Self-Initiated Static-Dynamic State Transition Behavior and Triggering Mechanism of Strain Rockburst
17:00-17:15	B160	Li Zhuang	Analysis of the Large Deformation Characteristics of High-Stress Jointed Soft Rock Tunnel Surrounding Rock Based on Microseismic Monitoring and Numerical Simulation
17:15-17:30	B161	Xin Li	Deformation Characteristics and Damage Evolution Mechanism of Weak interlayer Zone in Fractured Underground Cavern
17:30-17:45	B326	Honglin Luo	Study on Structure Anisotropic Elastic-Plastic Constitutive Model of Jointed Rock Mass
17:45-18:00	B181	Peiwei Xiao	Blasting Parameter Optimization for Hydraulic Tunnels Based on Multiple Monitoring Information

Poster Schedule

Vote for Best Poster!

Each attendee will have four stickers, place the sticker on your favorite poster.
The poster with the most votes will win the Best Poster Award and the winners will be announced at the closing ceremony!

September 22, 2023 | Friday

Theme 1: Engineering Geomechanics of Rock and Soil Masses
Theme 3: Megacity Engineering Geology
Theme 6: Marine Engineering Geology, Marine Geoenvironment and Disasters – 3rd International Symposium on Marine Engineering Geology (ISMEG 2023)

The poster session will be from 09:30-17:50, and each presenter should paste your poster before 09:30.

Order	ID	Presenter	Title
1	17	Yuxin Su	Evaluation of Underground Space Quality For A Delta Coastal City
2	B768	Pengfei Huang	Fragility Analysis of Subway Stations Based on Probability Density Evolution Method and Deep Learning Techniques
3	B771	Wei Yu	The Severest Real Seismic Design Ground Motions for Underground Structures Based on the Composite Intensity Measures
4	B888	Ujjwal Krishna Raghubansha	Rock Slope Stability Analysis for Cut Slope at Marble Made Terrain of Chandram Bhir and Gharghare Bhir of Central Nepal
5	427	Bangwen Lu	Effects of Water-Cement Ratios on Weathering Properties of High-Water Material
6	542	Yong-Seok Seo	Analysis on Time-Related Changes of Mechanical and Hydraulic Characteristics of Artificial Fault Core Specimen
7	656	Tingting Wen	Characteristics of Sediments in Offshore Photovoltaic Area and Their Effects on the Erosion-Deposition Variation
8	657	Congcong Xing	Investigation and Evaluation on Environmental Quality of Marine Sediment in Caofeidian Coastal Waters
9	482	Wenbo Du	Analysis and Evaluation of Geotechnical Design Method of Large Diameter Steel Tubular Pile for Wind Farm in Deep Marine Soft Soil Area
10	B541	Jiyan Qiao	A Study on Failure Envelope of UHV Transmission Tower Pile Foundation in Frozen Soil
11	669	Kang Fu	Research on TBM Tunneling Parameters Prediction and Stratum Recognition Based on Ascending Section Tunneling Data
12	346	Weida Ni	SPT Interpretation for Engineering Properties of Residual Silt in Vietnam
13	87	Yun Mo	Characteristics of Sandification Dolomite and Effect on In-Situ Bearing Capacity of Pile Foundation
14	71	An Liu	Research Status and Future Research Direction of Sample Disturbance
15	725	Bowen Zheng	Research on Engineering Geological Zoning of Plateau Mountains Traffic Corridors

Poster Schedule

Sept. 22, 2023 | Friday

Order	ID	Presenter	Title
16	173	Anastasios Tsikrikis	The Non-Dilatant Frictional Resistance of Fresh Tension Fractures in Sandstones and Marbles
17	B656	Xiaolei Liu	Geoenvironmental Hazard Risks and Monitoring Technologies for Marine Carbon Geological Sequestration
18	B704	Junxi Feng	Geological Occurrence and Accumulation Mechanism of A Seepage Gas Hydrate System in the Northwestern South China Sea
19	357	Dimitrios Kotsanis	Correlation Between the Shear Strength Parameters of Clastic and Carbonate Rocks with the Brazilian Tensile Strength and the Uniaxial Compressive Strength
20	678	Yu Zou	Study on Effective Influencing Factors of Common Landslides Susceptibility Methods
21	B387	Shuang Mao	Identification and Characterization of Natural Gas Hydrate Based on Neural Network
22	697	Huanhuan Zhang	A Friction-Thermo-Poro-Decomposition-Mechanics Model for Chemical Rocky Landslides Under Saturated and Unsaturated Conditions
23	B658	Huishi Xue	Investigating Limestone Strength Parameters in Dashixia Dam Area
24	278	Zhipeng Xu	Hydrogeological Uncertainty-Induced Over-Seepage Control by Grouting in Basement of Existing Building in Urban Areas
25	101	Guodong Zhang	Influence of Initial Moisture Content on the Slaking Features of Expansive Red Clay
26	538	Juncheng Liu	A Case Study of Protection for a Building Adjacent to Deep Excavation in Saturated Sandy Deposits
27	467	Liang Cheng	Element Tests Investigating Reinforcement Strain Distribution of Geosynthetic-Reinforced Soil (GRS) Mass Under Vertical Loading
28	B261	Shiao Liu	Shear Rate and Roughness Effect on Clay-Steel Interface Properties in Undrained and Partially Drained Conditions
29	B591	Zhuocheng Zhang	Experimental Investigation of Seismic Response on Adjacent Structures Due to Structure-Soil-Structure Interaction
30	38	Jing Zhang	Evaluation Method of Geological Conditions Suitable for the Development and Utilization of Underground Space in Northern Coastal Bedrock Cities of China
31	B301	Yufang Tan	The Acoustic Properties of Surface Sediments in the West Philippine Basin
32	604	Jianhua Guo	Study on the Dynamic Development Law of Cracks in Expansive Soil Under Dry Wet Cycling
33	B879	Rui Wang	Strength Criterion of Ice-Rich Moraine Soil Considering the Ice Form and Temperature Based on Thermal-Mechanical Triaxial Tests
34	B319	Yulu Lei	Study on Sampling Interval of Loess Collapsibility in Longdong Area

Poster Schedule

Sept. 22, 2023 | Friday

Order	ID	Presenter	Title
35	675	Yawei Li	Analysis of Shear Strength of Jointed Rock Masses Based on Connectivity Rate
36	91	Xiangyang Hu	Sand-Well Immersion Test on Deep-Seated Collapsible Loess in Shenhe Loess Plateau
37	729	Ye Liu	Effect of Wetting-Drying Cycles on the Strength and Microscopic Characteristics of Ili Loess
38	266	Xiaoqian Zhang	Selection of Constitutive Models for the Braced Excavation under Rainfall-Infiltration in Unsaturated Soils
39	B553	Zeqiang Ma	Frictional Properties of Simulated Granite Fault Gouges: Effect of the Altered Minerals Introduced by Water-Rock Reaction
40	615	Yue Chen	Geological Environmental Impact of Shallow Gas Release: A Case Study of Dayushan Island, East China Sea
41	B81	Shijie Liu	Progressive Transition from Extension Fracture to Shear Fracture of Altered Granite During Uniaxial Tensile Tests
42	63	Yeshuang Xu	Investigation on the Permeability Coefficient of Sand Soil Impacted by the Seepage Erosion Via Laboratory Test
43	B31	Dexin Niu	Attenuation and Propagation Characteristics of Railway Load-Induced Vibration in A Loess Area
44	B29	Yuxuan Gou	Study on the Adaptability of Metro Shield Tunnels in Ground Fissure Sites
45	B42	Zhiyu Guo	Model Experimental Study on the Failure Mechanisms of A Loess-Bedrock Fill Slope Induced by Rainfall
46	B77	Jikai Sun	High-Precision Strong Ground Motion Estimation of Downtown Mashiki Considering Site Effects During the 2016 M7 Kumamoto Earthquake of Japan
47	B254	Jixiang Guo	Experimental Research on Urban Ground Collapse Caused by Underground Pipeline Leakage Was Conducted Through Large-Scale Model Tests
48	468	Lina Guo	Research on the Experiment for Dilatancy of Unsaturated Silty Clay in Different Matrix Suctions
49	B180	Petr Kycl	Quantifying Differences in Laboratory Results of Shear Strength and Physical Properties of the Same Soil: Implications for Slope Stability Analysis and Engineering Geological Practices
50	702	Gaofeng He	Variability Analysis of Bearing Capacity of Piles with Slowly Varying Q-S Curves
51	B817	Hongke Zhou	Study on the Self-Healing Effect of Slip Zone of Red-Bed Translational Landslide
52	664	Ziming Qu	Numerical Analysis of Deformation Characteristics of Surrounding Rock in Mudstone Dolomite Composite Stratum Tunne
53	174	Weike Peng	Evolution of K0 Coefficient and Deformation Parameters of Coral Sand Under K0 Consolidation
54	B540	Bowei Yao	Study on the Characteristics of Diagenetic Nature Gas Hydrate Synthesis And Decomposition Process
55	12	Novgorodova Margarita	Interpretation of Data of Soil Cone Penetration Testing

Poster Schedule

Sept. 23, 2023 | Saturday

Theme 4: Geoenvironmental Engineering and Ecological Solutions

Theme 7: Deep Earth Resource and Energy Exploitation

Theme 9: Technological Innovation in Engineering Geology (3rd Shaoxing International Forum)

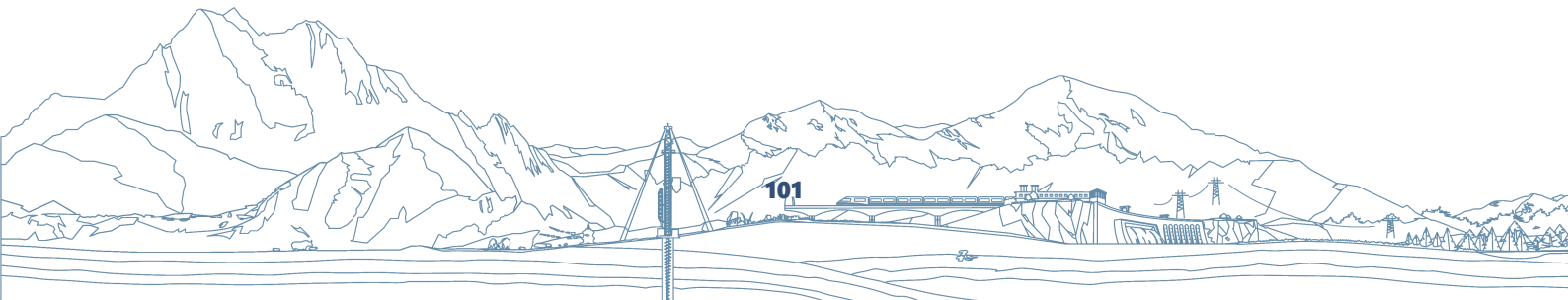
The poster session will be from 09:30-17:50, and each presenter should paste your poster before 09:30.

Order	ID	Presenter	Title
1	B680	Ji Yang	A Review of the Effects of Plants on Soil Hydraulic Characteristics
2	65	Yan Yu	Deterministic and Probabilistic Assessment of Compacted Clay Liners in Municipal Solid Waste Landfills
3	187	Baoying Jiang	Stability Analysis Models of Vegetative Slopes: A Review
4	B295	Jingyu Xie	Experimental Study on the Effect of Cyclic Water Cooling on Physical and Mechanical Properties of Hot Dry Granite
5	175	Zhongze Du	Analysis and Study on Chemical Characteristics of Groundwater in Dahaize Minefield of Yuheng Mining Area
6	375	Ke Zhou	The Impact Evaluation of Coal Seam Mining on Fault Based on Similar Material Simulation Method
7	247	Honglei Zheng	Application of UAV Electromagnetic Method in the Detection of Old Empty Water in Complex Terrain Mining Areas
8	B571	Zhixiang Chen	Total Matrix Suction and Multi-Phase Equivalent Matrix Suction of Diesel-Contaminated Soil
9	223	Aiwei Zhang	Long-Term Reliability Monitoring and Evaluation of Mine Grouting Curtain Based on the Distributed Optical Fiber Sensing Technology
10	425	Bangwen Lu	Investigation on Performance of A Sustainable Landfill Cover System Under Extreme Drying and Wetting
11	574	Xiaobing Kang	Study on the Mechanism of Water Inrush and Its Disposal Measures in Slope Shaft Tunnel of A Phosphate in Sichuan
12	B715	Huai Cheng	Characteristics of Oil/Gas Resources and Prospects of International Cooperation in the South Pacific Region
13	713	Zuofei Zhu	Review of the Marine Clean Energy Resources and Development Status Along the Maritime Silk Road
14	452	Jinxia Mu	Study on the Reconstruction Technology of Karst Fall Column-Fault-Fracture Property in Gubei Coal Mine
15	314	Jinqiang Miao	Study on the Calibration of Meso-Parameters of Granular Material Based on DEM Simulating the BE Test
16	367	Jianjun Hu	Geochemical Analysis of Quaternary Sediments in Nantong, China

Poster Schedule

Sept. 23, 2023 | Saturday

Order	ID	Presenter	Title
17	143	Zheng Wang	The Effect of Surrounding Media on the Response of Shallow Downhole Fiber-Optic Distributed Acoustic Sensing (Fo-Das): A Laboratory Simulation
18	224	Qingpeng Pei	Design of Landslide Monitoring System Based on Wireless Sensor Network
19	B803	Rui Wu	Moisture-Induced Changes of Elastic Properties in Brittle Rocks Through Laboratory Acousto-Mechanical Monitoring
20	202	Jun Yang	Application of Airborne Multispectral Remote Sensing Technology to Regional Geological Mapping
21	475	Guojie Guan	Application of Digital Geotechnical Investigation Technology in the Power Transmission Line Project of the Qamdo to Nyingchi Section of the Sichuan-Tibet Railway
22	159	Qinghong Dong	A Quick Sand and Water Inrush Disaster in Coal Mines with High Potential Energy
23	B688	Deheng Kong	A Smartphone-Based Photogrammetric Approach for Multiscale Rock Joint Roughness Quantification
24	450	Zixuan Qin	Prediction of Groundwater Quality Indexes Using the Linear and Non-Linear Mode
25	B18	Xichao Cao	Characteristics and Predictive Models of Hillslope Erosion in Burned Areas in Xichang, China, on March 30, 2020
26	B502	Yijie Sun	Research on FBG Based Flexible Sensor for Soil Stress Monitoring
27	479	Wenping Li	Evolution of the Mining Induced Bed Separation and Hydraulic Variation in An Extra Thick Aquifer
28	481	Zijing Luo	Research on Mechanism and Mechanical Model of Sandy Soil Reinforced by Herbal Roots
29	644	Sida Guo	Heterogeneous Void Fraction Distribution and Thermal-Hydro Characteristics of Mining-Induced Underground Coal Fire
30	B439	Zhe Sun	Comprehensive Evaluation of Water Seal Safety of Multi-Period Adjacent Caverns Considering Seepage Anisotropy-A Case Study in China
31	183	Chao Xu	Study on Prevention and Control of Water and Sand Inrush Disaster in Coal Seam Mining Under the Background of Soft Rock and Multi Coal Seam Superposition in Xinshanghai No. 1 Coal Mine
32	B404	Qianshen Ding	Effect of Aerobic Degradation on Settlement Characteristics of Municipal Solid Waste and Dry Unit Weight Prediction Model
33	B616	Zhaoqing He	An Advanced Monitoring and Early Warning System for Sudden Landslides Based on Edge Computing
34	B259	Erdenetsetseg Altangerel	Physical and Mechanical Properties of Swelling Soil in the Sainshand City, Mongolia



Poster Schedule

Sept. 23, 2023 | Saturday

Order	ID	Presenter	Title
35	341	Bo Kang	Micro Analysis of Lead Immobilization Mode of Microbial Induced Calcium Carbonate Precipitation
36	139	Gailing Zhang	The-State-of-the-Art of Treatment for Salvaging of Inundated Tunnels by Water Inrush Disaster Using Aggregate Pouring and Grouting
37	672	Violetta Shanina	Features of the Ecological-Geological System of the Effusive Soil Massif of the West-Koshelev Volcano (Kamchatka)
38	607	Shaohong Li	ELM-Based Approach for One-Dimensional Electro-Osmotic Consolidation
39	231	Irina Kozliakova	Municipal Solid Waste Disposal Sites and Geological Risk in the Central Federal Region of Russia
40	528	Olga Eremina	Assessment of Engineering Geological Conditions for Allocation of Landfills
41	B200	Peirou Li	Insight into the Removal and Recovery of Vanadium from Water Using Manganese Oxides
42	639	Yi Jiang	Detection and Analysis of Landslide Disasters on the Zhonggui Natural Gas Pipeline in Tianshui (China) Using Radar Interferometry Technology
43	226	Kun Chang	Study on Mechanical Behavior of Weak Bedding of Deep Shale Based on Discrete Element Simulation
44	560	Qi Cui	Chemical Compatibility of Polymer-Amended Bentonite-Sand Cutoff Wall Backfills Exposed to Copper Contaminants
45	B256	Jianqiao Zheng	Study on Heat Transfer Performance of a Segmented Cementing Medium-Deep Coaxial Heat Exchanger
46	B258	Qiangbin Liu	Experimental and Numerical Study on Heat Transfer and Flow Characteristics of a Coaxial Geothermal Heat Exchanger Equipped with a New Inner Tube and Exergy Evaluation
47	535	Bin Yan	Application Research of Rock Image AI Recognition Technology in Geotechnical Engineering Investigation in Sichuan-Chongqing Area
48	265	Zhonghao Wang	Distribution Characteristics and Genetic Mechanism of Goaf in Xinghe Iron Mine, Ji'nan
49	25	Hao Wang	Research on Types and Treatment Methods of Ground Collapse of Mining Area in Inner Mongolia
50	599	Irina Galitskaya	Study of the Landfill Body and Groundwater State in the Territory of Recultivated Municipal Solid Waste Landfill

Poster Schedule

Sept. 23, 2023 | Saturday

Order	ID	Presenter	Title
51	731	Huang Yong	Review on the Air Pollutant Emissions and Prevention Countermeasures in Typical Coking Industries in the North Slope of Tianshan Economic Zone of Xinjiang
52	B393	Wenxue Wang	Study on Characteristics of Compression-Shear Seepage in A Single Connectedness Fracture Rock Mass
53	415	Zhaoxing Liu	Development of Simulation Test System for the Slurry Movement of Horizontal Hole in A Fault fracture Zone
54	437	Shibin Zhu	Physical Simulation of the Response of Overlying Rock to Additional Loads in an Old Goaf of a Coal Mine
55	433	Longfei Feng	The Long-Term Stability of a Residual Protective Coal Pillar Under High Stress States
56	235	Feifan Ren	Prediction of Maximum Reinforcement Load of Reinforced Soil Retaining Walls Based on Machine Learning
57	B806	Xianyi Lei	Drought Resistance of Modified Organic Materials to Plants Under Drought Stress
58	336	Jinxia Mu	Application of "Multi-Type Four-Double Method" in the Danger of Roof Gushing Water in Coal Mines

Poster Schedule

Sept. 24, 2023 | Sunday

Theme 8: Geohazard Mechanisms, Risk Assessment and Control, Monitoring and Early Warning

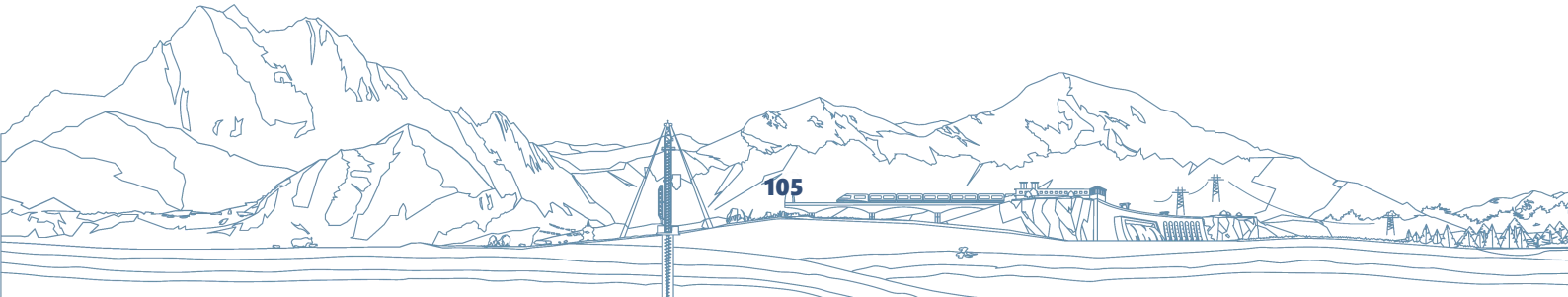
The poster session will be from 09:30-17:50, and each presenter should paste your poster before 09:30.

Order	ID	Presenter	Title
1	730	Guojun Cai	Three-Dimensional Discrete Element Study on Dynamic Response Characteristics of Slope Surface Under Strong Earthquake
2	B481	Jie Wu	Rainfall Threshold Based on TRMM Remote Sensing Data of Landslides in the Bailong River Basin, China
3	B578	Huangfeng Chun	Development Characteristics and Disaster Effects of Retrogressive Thaw-Slump in Heka Township of Qinghai-Tibet Plateau
4	B143	Yagya Murti Aryal	Surface Displacement and Landslide Identification in Sindhupalchowk District, Nepal: Sar Analysis and D- Insar Techniques
5	B551	Yunpeng Yang	Characteristics of the Impact Pressure of Outburst Debris Flow
6	B374	Hengzhi Qiu	The Effects of Excess Topography on the Distribution of Landslides Induced by the Luding 2022 Ms6.8 Earthquake
7	529	He Peng	Early Identification, Monitoring and Warning of Landslide Hazard in Northeast Sichuan Based on Integrated Remote Sensing Technology
8	B288	Oleg Zerkal	Loess Landslides as a Specific Type of Landslide Deformations
9	642	Peng Wang	Research on Prediction and Prevention of Nonuniform Deformation in Unsymmetrical Loading Tunnel
10	15	Fuchuan Zhou	Damage-Catastrophe Mechanism of a Tower-Column Unstable Rock Mass with Compressed-Fracture Slumping Mode Under Multi-Factor Couplings
11	133	Jianbo Fei	Energy Dissipation Effect of Different Structures on Debris Flow
12	595	Fanfan Li	Potential Geohazards Identification and Deformation Monitoring by Time-Series InSAR along Anhui Ningwu Expressway
13	260	Ruichen Zhou	Numerical Simulation of a Rainfall-Induced Debris Flow: A Case Study in Tianquan County, Southwest China
14	B655	Shouding Li	Intelligent Evaluation Methods for Slope Stability
15	B277	Shiqiang Bian	A Field Experiment on the Spatial-Temporal Evolution of Soil Moisture of a Rainfall-Induced Loess Landslide: Implications for Early Warning
16	406	Ning Li	Investigation and Analysis of "6.21" Debris Flow in Jiuzhaigou County, Sichuan Province

Poster Schedule

Sept. 24, 2023 | Sunday

Order	ID	Presenter	Title
17	594	Jiawei Liu	Stability of Coal Pillars and Backfill Due to Intermittent Cut-and-Fill Mining Under Loose Aquifer
18	B660	Man Feng	Stability Analysis of Inlet/Outlet Slope at Tongde Pumped Storage Hydropower Station
19	B808	Shuhao Ran	Semi-Supervised Historical Landslide Detection Based on the UniMeanMatch Framework
20	B111	Keke Zhu	Seismic Monitoring and Analysis of Geohazard Events at Zelongnong Glacier in the Southeast Tibet Region
21	B48	Hong Wen	Spatio-Temporal Evolution Mechanism of Channeled Snow Avalanches in the Parlung Tsangpo Catchment
22	122	Bin Liu	Study on Development Stage and Evolution of Landslides in Wide Fracture Zone of Anninghe Active Fault
23	5	Igor Fomenko	Landslide Hazard Assessment in Trung Chai Commune, Sapa, Vietnam Using Frequency Ratio Method and Scoops3D
24	B69	Yi Wang	Study on Formation Mechanism and Development Trend of Maojiawan Tunnel Ditch Debris Flow
25	578	Juan Liu	Real-Time Intelligent Monitoring of Rockfall in the Complex Environment
26	B245	Xuetao Yi	Risk Assessment on Landslide Induced by Human Disturbance in the Tianshan Mountains (China)
27	B670	Yunjin Huang	Towards a Physics-Based Lattice Boltzmann Model for Granular Avalanche Prediction
28	B216	Jiheng Li	Numerical Simulation Study of Front Edge Squeezing Effect of High-Speed Flowing Loess Landslid
29	B126	Jiahui Dong	Potential Landslides Identification Based on Temporal and Spatial Filtering of SBAS-InSAR Results
30	B255	Yiqing Sun	An Approach to Landslide Intensity Evaluation Based on Numerical Simulation of Post-Failure Process and Kinematic Behavior
31	B322	Qiu Peng	Study on the Characteristics and Causal Patterns of Harmful Gases in Non-Coal-Strata Tunnels of Railways in China
32	712	Boyu Gao	Strength Characteristics of Ili Loess and Its Landslide Numerical Simulation
33	B59	Qingyu Xie	Analysis on the Reactivated Cause of the Gaojiawan Loess-Mudstone Giant Landslide in the Upper Yellow River
34	402	Teruyuki Kikuchi	Detection of Deep-Seated Gravitational Slope Deformations by Aerial Photo Interpretation and Numerical Analysis Image in an Accretionary Complex in Japan



Sept. 24, 2023 | Sunday

Order	ID	Presenter	Title
35	350	He Liu	Response of Groundwater to Rainfall and the Recession Constant of Antecedent Precipitation in a Slope with Residual Soil
36	B41	Xuan Wang	The Failure Probability of Anti-slide Pile Considering the Spatial Variability of Geotechnical Parameters
37	B232	Lei Liu	Detailed Survey and Quantitative Risk Assessment of Landslides in Mountainous Village: A Case Study in Jingyang Town, Hubei Province, China
38	536	Fan Xie	Monitoring Spatial-Temporal Seismic Velocity Changes and Microstructural Changes on Rock Slope Associated with the M 6.8 Luding Earthquake
39	B36	Fan Liu	Landslide Susceptibility Prediction Based on Geomorphic Factors: An Example from the Luohe River Basin
40	B38	Nan Yang	A New Method of Seismic Slope Stability Analysis Based on Pseudo-Dynamic Method and Spencer Method
41	667	Minhao Hu	Geological Hazard Risk Assessment of Landslide Geological Hazards in the Gushan Navigation and Hydropower Hub Reservoir Area
42	343	Kurosch Thuro	Sliding Tbilisi: Why Georgia's Capital Is Haunted by Multiple Landslides
43	494	Jiji Ni	Experimental Investigation and Numerical Simulation on Progressive Failure of Landslide Under Different Rainfall Conditions
44	585	Zhimin Feng	Research on the Application of InSAR Technology for the Recognition of the Potential Danger of Suspected Geological Hazards
45	564	Leilei Jin	The Occurrence of a Rainfall-Induced Catastrophic Landslide in a Soil and Rock-Like Stratum in Southwest China
46	B382	Constantinos Loupasakis	Coastal Cities Under the Threat of Land Subsidence and Flooding. The cases of Messolonghi & Aitolikon, Greece
47	B347	Yingtong Ye	Deformation Identification and Stability Evaluation of Coal Mine Goaf in Linyi City
48	423	Yulin Xu	Reinforced Slope with Micropiles based on Centrifugal Simulation Test
49	B596	Changze Li	Numerical Study on the Disaster Reduction of Baffles for Rock Avalanches Using Discontinuous Deformation Analysis
50	645	Chuanyi Tao	Numerical Simulation of Crack Propagation in Jointed Rock Mass Based on an Enhanced SPH Method

Poster Schedule

Sept. 25, 2023 | Monday

Theme 2: Climate Change and Sustainable Development
Theme 5: Active Tectonics, Geomorphology, and Geological Hazards
Theme 10: Applied Geology for Major Engineering Projects
Theme 11: Preservation of Cultural Heritage and Engineering Geology
Theme 12: Young Engineering Geologist Afternoon

The poster session will be from 09:30-17:50, and each presenter should paste your poster before 09:30.

Order	ID	Presenter	Title
1	B381	Qiwen Lin	Fragmentation-Dependent Flow Behavior of Rock Avalanche: Insight Fromlaboratory Experiments
2	B629	Hongbin Liu	Impact of Hydrodynamic Erosion on Evolution of Porosity Structure and Permeability Attributes in Filled Fractures
3	291	Liuyuan Zhao	The Failure Modes and Geometric Morphology of Soil Slope Under Random Earthquake Ground Motions
4	B28	Wenxin Wang	Mapping of Soil Liquefaction Associated with the 2021 Mw7.4 Maduo Earthquake Based on the UAV Photogrammetry Technology
5	B679	Huilin Xing	A Finite Element Friction Model for the Tohoku-Oki Earthquake Occurrence: What Are the Mechanisms of Great Megathrust Earthquake in Subduction Zone?
6	405	Guangwei Zhang	Laboratory Investigation the Consolidation of Chinese Ancient Earthen Sites (Andier City Ruins) with Potassium Silicate Material
7	377	Jianhua Cai	Study on Quick Test Method of Rock Hardness Index During Tunnel Construction
8	B801	Hwanjo Baek	Utilization of the Limestone Mine Waste Rocks with Geotechnical and Environmental Characterization
9	420	Likun Liu	Study on Creep Mechanical Properties of Carbonaceous SLATE in Muzhailing Tunnel
10	600	Yongqiang Yue	Microenvironmental Features of Cave 133 in the Maiji Mountain Grottoes, Tianshui
11	81	Qiufeng Feng	Dangerous Rock Mass Identification and Rockfall Trajectory Analysis of a High-Steep Slope of a Hydropower Station
12	522	Jiayu Chen	Numerical Simulation of Construction Method and Support Measures of Large-Section Tunnel
13	B677	Xin Peng	Progressive Failure Characteristics of Shear Zone in Hard Soil-Soft Rock Under Hydraulic Action
14	22	Zhigang Wang	Analytical Solution for Longitudinal Response of Pipeline Under Fault Dislocation Based on Pasternak Foundation
15	279	Cangsong Li	The Study of Hydrochemical Kinetics Fractal Index Assessment Technology for Karst Development Degree: An Example from Xin Gaopo Tunnel
16	B466	Shao Kang	Frictional Properties Associated with Acoustic Emission Characteristics of Simulated Granite Fault Gouges: Implications for Shallow Seismicity in Heyuan, China

Poster Schedule

Sept. 25, 2023 | Monday

Order	ID	Presenter	Title
17	451	Siyao Yu	Risk Evaluation of Water Inrush in Dengloushan Tunnel Using Entropy-Catastrophe Method
18	272	Yunhui Zhang	Analysis on the Genesis and Engineering Influence of Geothermal Water in Kangding Area
19	628	Gang Yang	Intelligent Identification and Extraction of Geometric Properties of Rock Discontinuities Based on the Multi-View Stereo Technology: A Case Study of the Bimoyuan Tunnel, Sichuan Province, China
20	576	Chonghua Sun	A Study of the Geotechnical Setting and Its Impact on the Site of Lidu Shochu Workshop
21	B39	Huandong Mu	Analysis of Earth Fissure Prevention Methods and Influencing Factors Based on Isolation Wall
22	569	Kai Lu	Investigation of the Collapse of the Leitai Loess Platform and Cultural Heritage Using Ert and Sp
23	B151	Tao Tao	Research on Coal Mining Strata Movement Based on Comprehensive Remote Sensing Dynamic Observation in Semi-Desert Area
24	B150	Yang Liu	Study on InSAR Image Fusion for Improved Visualization of Active Landslides in Alpine Valley Areas: A Case in the Batang Region, China
25	B287	Yanjun Zhang	Performance Investigation of Micropile Groups in Stabilizing Unstable Talus Slopes Via Centrifuge Model Tests
26	44	Jin Zhao	Rainfall Infiltration Differences Between Compacted and Uncompacted Soil on the Chinese Loess Plateau
27	90	Hongke Zhou	Development and Evolution Characteristics of the Toppling Deformation of Anti-dip Layered Rock Slopes Based on Centrifuge Model Tests
28	544	Chang Sun	Coupling Effect of Climate Change and Soil Cracks on the Stability of Soil Slopes
29	658	Yi Hu	Investigation and Prevention of Cut Toe Layout of Hydraulic Structures on Steep, Hard and Soft Slopes
30	545	Bengang Tian	Desiccation Cracking Behaviour of a Clayey Soil with Various Compaction States
31	B877	Lin Sun	Characteristics and Laws of Ground Fissures Development in the Middle Section of the Tan-Lu Fault Zone
32	623	Longhui Yuan	Study on Stability and Seepage Characteristics of Small Clear Distance Tunnel Face in Urban Rich Water Environment
33	647	Dongwei Xing	Temperature Response Analysis of Rockburst Activity in Tunnel
34	B657	Wajid Hassan	Impact of Glacier Changes and Permafrost Distribution on Debris Flows in Badswat and Shishkat Catchments, Northern Pakistan

Poster Schedule

Sept. 25, 2023 | Monday

Order	ID	Presenter	Title
35	B30	Faqiao Qian	Empirical Predictive Models for Earthquake-Induced Landslide Displacements in China Using Newmark's Sliding Block Analysis
36	B66	Lifei Niu	Physical Model Test of the Deformation Behavior and Evolutionary Process of the Multi-Sliding Zone Landslide
37	134	Jinhong Lin	Study on Seepage Characteristics and Grouting Reinforcement Technology of Jinkouhe Fault of Shaping I Hydropower Station Dam Site
38	B68	Linfeng Gao	Numerical Simulation Analysis on Influence of Underground Water Levels on Dynamic Response of High-speed Railway Subgrade Crossing Ground Fissure Zone
39	B37	You Xuan	Dynamic Characteristics of Fault-Controlled Earth Fssure Sites in Jingyang County, Weihe Basin, China
40	B27	Ge Cao	Dynamic Effect of the Earth Fissure Sites in the Yuncheng Basin, China
41	7	Haofeng Xing	Centrifuge Model Tests of H-Type Anti-Slide Pile Reinforced Soil-Rock Mixture Slope
42	502	Kurosch Thuro	Damage Report of the Construction Phase of a Suburban Railway Tunnel at the Airport of Munich, Southeastern Germany
43	352	Haoxin Shi	Prediction of Tunnel Rockburst Classification Using Rvi Index Method and Stratification Analysis Method
44	335	Wen Zhao	Experimental Study on the Controlling Method of Extruded Ice on Subgrade of the Sichuan-Tibet Railway
45	207	Wenjie Gao	Experimental Study on the Factors Affecting Overflow Extruded Ice in Sichuan-Tibet Traffic Corridor
46	72	Yunzhi Sun	Failure Mode and Engineering Practice of 500m Grade Steeply-Inclined Bedding Rock Mass of Ultra-High Artificial Slope
47	558	Longwei Chen	Reliability Analysis of One-Dimension Seismic Site Response Analysis Programs for Deep Soil Sites
48	292	Haifeng Huang	Vibration Influences on Shield Tunnel and Surrounding Environments Induced by Train Load on Line 5 of Tianjin Metro
49	92	Xiaofei Han	Study on the Deformation Zone of Tianzhuang Fault in Taiyuan, China
50	B57	Yagya Murti Aryal	Landslide Susceptibility Assessment in Tanahu District, Nepal
51	B549	Regine Morgenstern	Shaky Isles: The New Zealand Approach to Active Fault Hazard Classification and Risk Mitigation
52	B932	Jingjing Long	A Multi-Feature Fusion Transfer Learning Method for Hydrodynamic Pressure-Driven Landslide Displacement Prediction

Sept. 25, 2023 | Monday

Order	ID	Presenter	Title
53	B933	Ke Xing	Vegetation-Landslide Nexus and Topographic Changes Post the 2004 Mw 6.6 Chuetsu Earthquake
54	B934	Aonan Dong	Unraveling the Evolution of Landslide Susceptibility: A Systematic Review of 30-Years of Strategic Themes and Trends
55	B99	Junjie Ma	A Tunnel Information Management System for Surrounding rock Classification Using Machine Learning
56	460	Linchuan Liao	Research on Deformation of Surrounding Rock and Bearing Force Characteristics of Supporting of Steeply Inclined Stratified Tunnel Under Ground Load
57	412	Junfu Lu	Research on the Deformation and Damage Characteristics and Support Effects of Tunnel Surrounding Rock in Sandy Cobble Stratum

Training Courses

Chair: Weihua Zhao

Training Course 1: 13:30-14:50, Sept. 21

Instructor: Jianhong Ye

Institute of Rock and Soil Mechanics, Chinese Academy of Sciences

Jianhong Ye is currently a full professor at the Institute of Rock and Soil Mechanics, Chinese Academy of Sciences (CAS). He obtained BEng from the China University of Geosciences (Beijing) in 2006, followed by an MEng degree from the Institute of Geology and Geophysics, CAS, in 2019, and a PhD from the University of Dundee in 2012. He accepted support from the National Overseas High-Level Talent Program in 2015. Over the last 14 years, he has self-developed the computational platform FssiCAS.

A Chinese Self-developed Computational Platform Fssicas for Offshore Geotechnics and Marine Engineering Geology: Theory, Verifications, Characteristics and Applications: FssiCAS is a Chinese self-developed computational platform in the fields of offshore geotechnics and marine engineering geology, available at https://www.fssi.ac.cn/download.html. It can be utilized to study the fluid-structure-seabed interaction, ocean wave/seismic wave-induced dynamics and instability of marine structure and its seabed foundation. It also can be used in the traditional geotechnical engineering problems involving soil/rock mechanics. In the training course, we will systematically introduce the mathematical theory, a series of experimental and analytical verifications for FssiCAS. Most importantly, the typical characteristics and functionalities of FssiCAS will be emphasized. Finally, some typical engineering applications about breakwaters, offshore wind turbines will be detailly presented.

Training Course 2: 15:00-16:20, Sept. 21

Instructor: Chaojun Ouyang

Institute of Mountain Hazards and Environment, Chinese Academy of Sciences

Chaojun Ouyang is a researcher of Institute of Mountain Hazards and Environment of CAS. He has won the NSFC Outstanding Youth Fund, and Outstanding Member of Youth Innovation Promotion Association. He is the director of CAS's Key Laboratory of Mountain Hazards and Earth Surface Processes. He is mainly engaged in the research of geological disaster dynamic mechanism and risk assessment, prediction and early warning based on numerical simulation of dynamic process. He has independently developed an important professional software, which is the earth-surfaced dynamic simulation software-MassFlow.

Applications and operations of numerical modeling software of dynamic process of earth-surfaced flow — Massflow: Massflow, accessible at www.massflow-software.com, is based on the depth-integrated continuum and employed a second-order MacCormack-TVD finite difference method. It offers shared code and user-friendly GUI for researchers and engineers. Based on this framework, Dr. Ouyang and his team have done several insightful simulations of real landslides and debris flows. Researcher has published more than 100 papers based on this software. This training course will introduce the basic of the software, the mechanism and related model to modeling the real hazards, and the framework and finished work of forecasting of catchment flood or debris flow. More than 2000 people are in the QQ group (436302485), please join it before the course.

Training Course 3: 16:30-17:50pm, Sept. 21

Instructor: Chun Liu

Nanjing University

Chun Liu is a professor at Nanjing University. In 2012, he got his PhD degree from Nanjing University. Later, he conducted postdoctoral research at Stanford University and joined Nanjing University in 2014. His research interests include discrete element theory, system development, and the applications in geology and geotechnics. He has hosted or participated in 10 National Natural Science Foundation projects, and has over 90 papers published. Since 2011, he developed a high-performance discrete element software MatDEM from scratch, which earned him the 'China Digital Simulation Independent Software Innovation Award'. Now, the MatDEM has been applied in various fields including geotechnics, geology, and industry, and has over 2000 users.

The Principle and Applications of Discrete Element Software MatDEM: The discrete element method has broad application value in scientific research and industry. Based on the innovative matrix computing of the discrete element method, the high-performance discrete element software MatDEM can handle millions of elements in one workstation. Please download the MatDEM software, tutorials (in Chinese and English) from http://matdem.com before the training course.

IAEG-C17 Workshop

Time	19:30-21:30, Sept. 23	**Venue**	Wuhou Hall
Speaker	**Atiye TUGRUL** (Chair person, IAEG Aggregate Commission)		

This workshop is planned to present and develop the activities of the IAEG Aggregates Commission. The aim of the meeting is to ensure the participation of representatives from China, one of the world's largest aggregate-producing countries, and other IAEG member countries in the work of the Commission and to develop joint projects.

IAEG-C34 Workshop

Time	19:30-21:30, Sept. 23	**Venue**	Shuhan Hall
Organizers	**Yonggang Jia** (Ocean University of China, China) **Xiaolei Liu** (Ocean University of China, China)		

This is an annual meeting of IAEG-C34: Marine Engineering Geology. The agenda includes: 1) Opening ceremony; 2) Current membership; 3) Annual report and working plan; 4) Open discussion; 5) Award ceremony of Outstanding Young Researcher in Marine Environmental Engineering (OyrMee Award).

Jointed workshop of IAEG-C29, C36 & C38

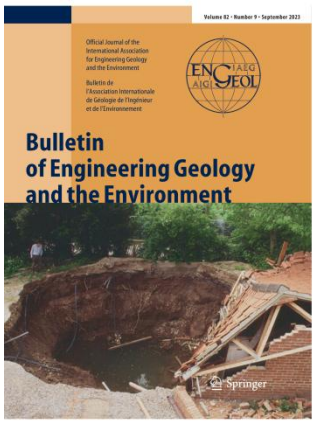
Time	19:30-21:30, Sept. 23	**Venue**	Jinjiang Hall
Organizers	**Shengwen Qi** (CAS, China) **Lihui Li** (CAS, China) **Weimin Ye** (Tongji University,China)		
	Yonggui Chen (Tongji University,China) **Haris Saroglou** (NTUA, Greece)		
Speakers	**Yanyan Li** (Beijing University of Technology, China) **Xueliang Wang** (CAS, China)		
	Yong He (Central South University, China) **Haris Saroglou** (National Technical University of Athens, Greece)		

Rock and soil masses constitute the environment of infrastructure works and engineering construction. Structural characteristics are the basic elements of rock and soil masses, and are the important cause for complex heterogeneity, discontinuity and anisotropy of soil and rock mass. Various types of discontinuous structures, such as joints and faults, greatly affect the deformation and failure characteristics of rock mass under specific conditions. Rock mass characterization and behavior are the most critical element for the safe and efficient design of engineering works. Recent trends in soil, and rock engineering involve deep underground applications, like hydraulic fracturing for shale gas and oil extraction, waste disposal, energy storage and rock slope stability applications with new characterization tools. Fracturing of rocks is driven by the heed to exploit underground energy resources, but in many cases fracturing must remain limited to sustain safety in engineering construction. More emphasis should be given to the study of structure, deformation and failure behavior of soil and rockmass. Therefore, the jointed workshop of Commissions C29 (Structure and behavior of soil and rockmass), C36 (Engineering Geology for Waste Disposal) and C38 (Rockmass characterization with emphasis in rock slope hazards), is scheduled during the IAEG-2023 in Chengdu, China, with the aim to focus on the structure, characterization, deformation and failure, and coupled effects of soil and rockmass.

BOEG Session

Bulletin of Engineering Geology and the Environment (BOEG) Session

Time	10:45-12:10, Sept. 23	**Venue**	Gaoxin Hall
Organizers	**Louis Wong** (Editor in Chief)	**Arundam Basu** (Editor in Chief)	



Join us for an insightful session on the Bulletin of Engineering Geology and the Environment (BOEG), the esteemed official journal of the International Association of Engineering Geology and the Environment (IAEG). Established in 1970, six years after the inception of IAEG, BOEG has grown to become a highly respected scientific reference in engineering geology, environmental studies, and related geosciences.

Session Highlights

- Journey through the history of BOEG with Editors-in-Chief, Louis Wong and Arindam Basu, as they share the evolution of the Bulletin from a simple artisanal publication to a renowned scientific reference.
- Gain valuable insights into recent statistical assessments of BOEG submissions and publications.
- Receive expert advice on preparing manuscripts for submission to BOEG, ensuring your work stands out.
- Witness the presentation of certificates of appreciation to a select group of top BOEG reviewers. These individuals have demonstrated unwavering dedication to the peer-review process, significantly contributing to the academic credibility of BOEG.

Open to all Congress participants, this BOEG session is an excellent opportunity to learn more about the BOEG's history, submission process, and the invaluable work of its reviewers. Don't miss this chance to deepen your understanding of BOEG its impact on the geoscience community.

Personnel

Arindam Basu (AB), Editor-in-Chief Louis Wong (LW), Editor-in-Chief
Xiaoli PEI (XP), Springer Xu CHEN (XC), Congress Organizer

Rundown

- History of BOEG; Some statistics of BOEG
- Presentation of certificates of appreciation to top reviewers and photo taking
- Tips of preparing good BOEG manuscripts
- Q & A

Meeting of the IAEG Asian National/Regional Groups for Advancing Engineering Geology in Asia: Strategies and Initiatives for a Three-Year Period

Time	13:30-15:30, Sept. 24	**Venue**	Shurong Hall
Organizers	IAEG VPs of Asia, Nepalese Society of Engineering Geologists (NSEG)		

Agenda 1: Memberships and Awareness

- IAEG Asian National/Regional Groups
- Membership Drive of IAEG
- Social media and Communication
- Awareness Campaigns

Agenda 2: Capacity Building and Research

- Training and Workshops
- Research Initiatives
- Support to IAEG Publications
- International Collaborations

Agenda 3: Promotion and Advocacy

- Regional Conference
- Advocacy and Policy Engagement
- Industry Partnerships
- Sustainability Focus
- Support to IAEG VPs of Asia

Inaugural Meeting of Global Partnership for Smart Informatics and Multi-hazard Reduction (SIMR)

Time	20:00-21:30, Sept. 24	**Venue**	Wuhou Hall
Organizers	Qiuhua Liang (Loughborough University, UK), Xuanmei Fan (Chengdu University of Technology, China)		

The establishment of SIMR marks a significant milestone in our collective efforts to address the challenges posed by the increased multi-hazard risks exacerbated by climate change in today's rapidly evolving world. The inaugural meeting of SIMR is organized by SKLGP, Chengdu University of Technology and the UNESCO Chair in Informatics and Multi-hazard Risk Reduction (IMRR) at Loughborough University (UK), and will serve as an opportunity to introduce SIMR, outline our goals, and initiate discussions on how we can collectively contribute to addressing the global challenges related to multi-hazard risk reduction and climate resilience. We extend a warm invitation for your enthusiastic participation!

THE XIV CONGRESS OF THE INTERNATIONAL ASSOCIATION FOR ENGINEERING GEOLOGY AND THE ENVIRONMENT

Field Trip 1

Hydraulic Engineering Masterpiece, Earthquake Damage and Geohazard

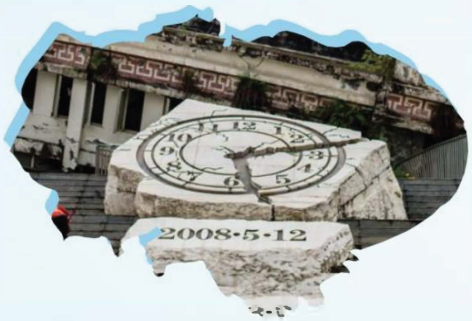
Chengdu

Dujiangyan Irrigation System

The Dujiangyan Irrigation System is a grand water conservancy project that is ancient and the only one remaining in the world. It is characterized by its unique feature of water diversion without dams. It has been in existence for over **2250 years** and continues to protect and irrigate millions of acres of fertile land in the Chengdu Plain.

Zipingpu Dam

The Zipingpu Dam, located only **17km** away from the epicenter of the Wenchuan earthquake, withstood the test of the earthquake with **seismic intensity X**.



Yingxiu Town

Yingxiu Town, located in the epicenter of the Wenchuan earthquake, was severely affected by the disaster. The earthquake left a lasting impact on the town, including the destruction of Xuan Kou Middle School, which became a significant site of the earthquake. Time was frozen in **May 12, 2008, at 14:28.**

Large-scale Debris Flow Channels

Niujuan Gully and Hongchun Gully
Investigate the epicenter of major earthquakes and high-frequent post-earthquake geohazards.

Chengdu

Time: September 26, 2023, 8:00-18:30 (Whole day trip, lunch included)

Person in charge: Professor Hu Wei (Chengdu University of Technology)
Email: 513933225@qq.com

Contact persons: Professor Chang Ming (Chengdu University of Technology)
Email: changmxq@126.com, changming15@cdut.edu.cn

Associate Professor Li Yan (Chengdu University of Technology)
Email: 43133660@qq.com

THE XIV CONGRESS OF THE INTERNATIONAL ASSOCIATION FOR ENGINEERING GEOLOGY AND THE ENVIRONMENT

Field Trip 2

Co-seismic Landslides and Selection of Major Project Sites

Chengdu

Luding Hydropower Station

With a total storage capacity of 219.5 million cubic meters, it is a critical component of the Dadu River Hydropower Base. Despite experiencing a magnitude Ms 6.8 earthquake, it continued to operate normally, showcasing its exceptional engineering resilience.

Yakang Bridge

Known as the "First Bridge of Sichuan-Tibet Highway," Yakang Bridge is a super-large, long-span steel truss cable-stayed bridge. It serves as a landmark structure along the G4218 Yakang Expressway.

Luding Bridge

Luding Bridge holds the world record for the longest span of an ancient suspension bridge. It gained historical significance as the site of the “Battle of Luding Bridge” during the Long March of the Chinese Red Army.

Wuzhisuo Landslide

An ancient earthquake-induced landslide that occurred 20,000 years ago, Wuzhisuo Landslide directly led to the diversion and relocation of the Dadu River.

Mogangling Landslide

Mogangling Landslide is the largest known landslide dam failure event in the world. It is a result of ancient seismic activity.

Moxi Terrace

Moxi Terrace is a glacially deposited plateau formed through multiple periods of tectonic movement and the action of ice and water. It showcases magnificent scenery today.

Chengdu

Date: September 26-27, 2023, 2 days trip (Accommodation and meals included)

Person in charge: Professor Wang Yunsheng (Chengdu University of Technology) Phone: 17721862896

Contact person: Professor Luo Yonghong (Chengdu University of Technology) Phone: 13982203419

Professor Yang Yinghui (Chengdu University of Technology) Phone: 13540769501

Dr. Wang Dan (Chengdu University of Technology) Phone: 13699477147

THE XIV CONGRESS OF THE INTERNATIONAL ASSOCIATION FOR ENGINEERING GEOLOGY AND THE ENVIRONMENT

Field Trip 3

Three Gorges Water Conservancy, Hydropower Project and Reservoir Landslide Disasters

Chengdu

Shen Nong River

Originating from the southern foot of the "First Peak in Central China" in Shen Nongjia, the Shen Nong River has a wide distribution of carbonate rocks and significant river erosion, creating a typical karst landform. It features three unique natural gorges: Shen Nong Gorge, Ying Wu Gorge, and Long Chang Gorge.

Badong Large-scale Field Integrated Experimental Site

Located within the Huangtupo landslide, a super-large ancient landslide in the Three Gorges Reservoir area, it is the world's only large-scale field integrated "underground laboratory" focused on reservoir landslide scientific research. The experimental site has a cumulative length of 1100 m of underground tunnels, with a maximum tunnel width of 5 m, and is equipped with a comprehensive real-time multi-physical field monitoring system from the sky, ground, and deep levels.

Three Gorges Dam

Located in the Xiling Gorge section of the Yangtze River, the Three Gorges Dam is the main dam of the Three Gorges Water Control Project. It integrates functions such as flood control, power generation, navigation, and water resource utilization. It is one of the largest water control projects in the world today.

Chengdu

Contact Information

Manager: Professor Li Changdong (China University of Geosciences, Wuhan)
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Contact Persons: Associate Professor Zou Zongxing
(China University of Geosciences, Wuhan)
Email: zouzongxing@cug.edu.cn

Associate Professor Wang Jing'e
(China University of Geosciences, Wuhan)
Email: wangjinge@cug.edu.cn

Field Trip Overview Map

Welcome Banquet

Date	19:00-20:30, Sept. 22	Venue	Crystal Hall

Get ready to kick off IAEG 2023 in style! Our welcome banquet promises an unforgettable evening filled with the charm of Sichuan opera and the allure of Guzheng performances. **Even better, this dazzling event is free for all registered attendees.** We extend a warm invitation to you, so join us and let's make this night truly extraordinary!

City Tour

Date	Sept. 23-25, 2023 (Half-Day Tour)
Time	Departure from the hotel at 13:00 - Approximate return to the hotel at 18:00

Chengdu Research Base of Giant Panda Breeding

The world's largest giant panda breeding and scientific research base. Immerse yourself in the lush natural beauty of this ecological haven, where you'll witness these iconic creatures in their native habitat. Meet over 200 pandas here and never miss our national darling- the most adorable star-Kung Fu Panda's little sister, Hua Hua.

Chengdu Museum of Natural History

Unearth the secrets of our planet at this remarkable museum. Find the logo of Chengdu University of Technology, a 22-meter-long Mamenchisaurus skeleton. With nearly 70,000 collections and 10,000 exhibits on geological wonders, environmental mysteries, and the story of life's evolution, you'll be exploring a treasure trove of knowledge.

We encourage you to seize this incredible opportunity to explore Chengdu's cultural gems during the conference. Dive into IAEG 2023, where culture, science, and adventure collide!

Tentative Itinerary:

13:00-13:40: Head to Chengdu Panda Base by bus.
13:50-15:30: Visit Chengdu Panda Base.
15:30-15:50: Head to Chengdu Natural History Museum.
15:50-17:00: Visit Chengdu Natural History Museum.
17:00-18:00: Back to the hotel by bus.

Sponsors, Exhibitors and Acknowledgements

Our exhibitors offer an excellent platform to interact with you and your company. Your active interest and participation during the exhibit hours will help to ensure that vendor support will remain strong during the years to come. Remember, without these exhibitors, the XIV IAEG Congress 2023 would not be successful.

Be sure to:

- Visit each and every booth
- Express your needs
- Ask questions and get answers
- Learn about new products and services

#A0 International Association for Engineering Geology and the Environment

www.iaeg.info
iaegsg@163.com
The International Association for Engineering Geology and the Environment (IAEG) was founded in 1964 and is affiliated to the International Union of Geological Sciences (IUGS). IAEG is a worldwide scientific society with more than 4800 members and 69 national and regional groups. There are also 19 active professional commissions in different fields. IAEG publishes an official academic journal by Springer-Verlag "the Bulletin of Engineering Geology and the Environment" . The aims of IAEG are: to promote and encourage the advancement of Engineering Geology through technological activities and research, to improve teaching and training in Engineering Geology, and to collect, evaluate and disseminate the results of engineering geological activities on a worldwide basis.

#A1A2 Maccaferri China

No.205 Xie Yuan Road, Ningxiang, Hunan, China
www.maccaferri.com
r.zhang@maccaferri.com
Founded in 1879, our Group soon became a worldwide reference in the design and development of advanced solutions, with offices in over 70 countries and 30 factories worldwide. Our mission is to pursue excellence through continuous improvement, while delivering to customers engineered solutions that are innovative, advanced, and environmentally friendly. We are committed to outstanding safety, quality, and sustainability, to create value for all stakeholders as well as our communities.

#A3A4 Jingchuang Intelligence

Room.4, F5, 2nd Bld., Huirun International, Chenghong Road 26, Chengdu, China
www.cdutlidar.com
68302954@qq.com
Founded in 2018, Jingchuang Intelligent Technology Co. , Ltd.(referred to as "Jingchuang Intelligence") is a leading service provider of geo-hazard prevention and Spatial Geographic Information Technology in China. The company focuses on the fusion technology of Lidar and remote sensing images, and specializes in the deep application of geological hazards, LIDAR, UAV, photogrammetry and other technologies in the field of geological hazards prevention and control.

#A5A6 Sichuan Xingchen Surveying Instrument Co, Ltd.

3rd Floor, Bld. 1, Aoyuan Intl. Center, No. 66 Shuangdian Road, Chengdu, China
www.cqxcch.cn
469358689@qq.com
Sichuan Xingchen Surveying Instrument Co, Ltd. was established in 2005. Itis a specialized service company engaged in the sales and development of geographic information spatial data collection equipment, construction surveying equipment, and geographic information software. Our main products include total stations, high-precision GNSS receivers, GIS data collectors, 3D laser scanners, unmanned aerial vehicle remote sensing hardware and software products, as well as displacement monitoring systems, digital construction and BIM detection systems, and location services for data application solutions.

#A7A8 Shenzhen Feima Robotics Technology Co., Ltd.

8008, Block C, Baosheng Plaza, No. 8 Heiquan Road, Beijing, China
www.feimarobotics.com
sales@feimarobotics.com
Shenzhen Feima Robotics Technology Co., Ltd., a Chinese high-tech company, has been jointly founded by senior executives and specialists from IT and UAV domains, with a considerable industrial technology accumulation and marketing experience, as well as IT product design and industrial manufacturing experience. The company has R&D centers in Shenzhen, Beijing and Tianjin, with a R&D team of more than 200 people. Feima Robotics has more than 240 patents and honors like National High-tech Enterprise and National Little Giant Firm.

#B1 PowerChina Huadong Engineering Corporation Limited

No.321 Dengcai road, Hangzhou, China
www.hdec.com
zhao_ly@hdec.com
PowerChina Huadong Engineering Co., Ltd. (HDEC), one of the earliest investigation & design institutes in China. The scope of business includes hydropower and new energy,

urban and rural construction, ecology and environment and other fields. HDEC strive to build a first-class international engineering company with intelligent service ability in the whole process of the project. The headquarter of HDEC is located in Hangzhou, and have six regional headquarters in Asia Pacific, Eurasia, Southeast Africa, Central and Western Africa, the Americas, and the Middle East and North Africa, covering over 70 countries and regions.

#B2 Hangzhou Ruhr Technology Co., Ltd.

F7-11, Bld. No.5, Keji Road No.8-5, Hangzhou, China
www.ruhrtec.com
sunyt@ruhrtec.cn
Ruhr IoT is a national high-tech enterprise founded in 2013 by a team of PhDs who studied in Germany, which has been selected into the Hangzhou Quasi-Unicorn Enterprise list for four consecutive years, selected into the 2023 China Future Unicorn Enterprise list, selected into the Ministry of Industry and Information Technology specialized and special new key "Little Giant" enterprise, and awarded the first equipment enterprise (set) in Zhejiang Province. The company is committed to becoming the world's leading intelligent hardware-driven security monitoring scenario solution provider.

#B3 SPRINGER NATURE

www. springernature.com
For over 180 years Springer Nature has been advancing discovery by providing the best possible service to the whole research community. We help researchers uncover new ideas, support librarians and institutions with innovations in technology and data, and provide quality publishing support to societies. We make sure all the research we publish is significant, robust and stands up to objective scrutiny, that it reaches all relevant audiences in the best possible format, and can be discovered, accessed, used, re-used and shared.

#B4 Hi-Target Satellite Navigation Technology Co., Ltd.

Bld.101, No.13, Tianan Headquarters Center, No.555 North Panyu Ave., Donghuan Street, Guangzhou, China
https://en.hitarget.com.cn/
event@zhdgps.com
Established in 1999, Hi-Target is a pioneering high-precision surveying and mapping instrument brand that has achieved a successful listing in China. Hi-Target is committed to investing heavily in research and development and specializes in providing a comprehensive range of integrated commercial solutions for various industries. Our offerings include surveying and engineering solutions, Mobile GIS, Hydrographic Survey Solutions, Monitoring Solutions, Machine Control Solutions, Precision Agriculture Solutions, and Correction Services.

#B5 Sichuan Institute of Geological Engineering Investigation Group Co., Ltd.

No.119 Xiqing Road, Chengdu, China
www.scsdky.com
815332772@qq.com
Sichuan Institute of Geological Engineering Investigation Group Co.Ltd.(CKJT), formerly known as the Sichuan Provincial Mining Bureau Chengdu Hydrogeology and Engineering Geology Team established in 1956, is a first-class high-tech enterprise with diversified development in ecological environment engineering, geotechnical engineering, disaster prevention and mitigation engineering, information engineering and construction engineering based on geological engineering. It currently holds more than 30 types of qualification certificates issued by competent departments of housing construction, natural resources, emergency management, environmental protection, water resources, transportation, science and technology, etc., including 24 type A or first-level qualifications.

#B6 Chongqing Changjiang Geological Survey and Mapping Institute Co., Ltd

www.ccerd.com.com
691501106@qq.com
Tel: +86-023-86388007

#B7 Sichuan Huadi Construction Engineering Co. Ltd. & Sichuan Engineering Technology Research Center of Geohazard Prevention

No.3,1st Ring Road North Section 2, Chengdu, China
www.schuadi.com
schdjs@126.com
The company was established in December 1995 in Chengdu with a registered capital of 500 million yuan. Currently, it has 26 departments including the Water Engineering and Environmental Exploration and Design Institute and the Science and Technology Innovation Center, with over 700 employees. The company focuses on the entire industrial chain of geological disaster prevention and control, with multiple businesses in the geological and engineering fields running parallel, achieving full coverage of comprehensive industry businesses

#B8 HF Agile Device Co., Ltd.

Fuhuang Intelligent New Vision Bld., Hefei, China
www.revealerhighspeed.com
peipei@gaosuxiangji.com
We always adhere to the customer-centrism and are committed to providing the best products and services, and we will reply to your message as soon as we receive it. No Matter Where You Are, Distance Between We And You. Contact us!

Sponsors, Exhibitors and Acknowledgements

#B9 The State Key Laboratory of Geohazard Prevention and Geoenvironment Protection (SKLGP)

No.1 East Third Road, Erxianqiao, Chengdu, China
https://en.sklgp.cdut.edu.cn/
sklgp2021@cdut.edu.cn

The State Key Laboratory of Geohazard Prevention and Geoenvironment Protection (SKLGP), Chengdu University of Technology, located in Chengdu, Sichuan Province, Southwest China, is a world-class institute and China ' s only NATIONAL level laboratory focusing on geohazard prevention, engineering geology and geotechnology. SKLGP has very advanced instruments and equipment with a total value of about 2 billion RMB, which could fully support all kinds of geohazard and geotechnical research, including on site and laboratory tests, monitoring, geotechnical parameter tests, physical and numerical modelling system, GIS and RS analysis system etc.

#B10 Chengdu Smart IoT Co., Ltd.

No.26 Chenghong Road, Chengdu, China
www.igeotek.cn
845535067@qq.com, zhuxing330@163.com

iGeoTek Company was founded in Chengdu City, China in 2018. The company was rated as a national high-tech enterprise in 2020. iGeotek develops ultra-low power and smart wireless sensors and geohazard monitoring systems, including wireless crack meters, intelligent remote terminate units (iRTU), Beidou/GNSS displacement monitoring device, rainfall gauges, debris-flow ultra-sonic detectors, high precision inclinometer and geo-acoustic sensors. iGeotek provides the best wireless sensors in the industry in terms of smartness, size, weight, battery efficiency, battery life, features and maintenance-free in harsh environments. iGeotek also provides smart solutions for wireless acquisition strategy. The developed sensors are integrated with an intelligent self-adaptive frequency acquisition algorithm through embedded software programming to improve the efficiency of monitoring and early warning for sudden and random geological disasters. iGeotek sensors have played a key role in the successful warning of many large landslides in China.

#B11 The 2nd Geological Brigade of Sichuan

19th~21th floors, Block B, Chuanlv Building, No. 18 South Railway Station, Chengdu, China
www.scsd2dzdd.com
scdzj002@163.com

The 2nd Geological Brigade of Sichuan, affiliated to Sichuan Geological Bureau, is a second-level public institution under Sichuan provincial administration. It's mainly responsible for basic, public welfare, strategic and other geological technical services and support work. With 20 enterprises represented by Sichuan Geological Engineering Group Co., Ltd., it owns 7 scientific research platforms such as Sichuan Geological Resources, Environment and Engineering Innovation Center, 9 core technical teams, 1 national laboratory, and 13 Grade A qualifications such as geological disaster and surveying; it is a comprehensive geological prospecting team with professional advantages in geological prospecting, hydraulic environmental geology, ecological remediation, geological disaster prevention, surveying and mapping, engineering construction, ecological restoration, inspection and testing.

#B12 Chengdu University

NO. 2025 of Chengluo Avenue, Chengdu, China
www.cdu.edu.cn
renxu@cdu.edu.cn

Chengdu University was established in 1978 and holds a key university status in Sichuan Province and Chengdu City. It served as the host institution for the 31st World University Summer Games (Universiade). The university has the authority to deliver bachelor's and master's degrees, operates a post-doctoral practice base, and is designated as a high-level university in the Ministry of Education's "Excellent Engineer Education and Training Program." It is also recognized as a university with a unique focus on national defense education and is part of Sichuan Province's doctoral education program under the "Priority Cultivation" category.

#B13 Institute of Mountain Hazards and Environment, CAS

No.189, QunXianNan Street, Chengdu, China
www.imde.ac.cn
zhaopin@imde.ac.cn

Institute of Mountain Hazards and Environment (IMHE), Chinese Academy of Sciences, Chengdu, is a state non-profit academic institution, major in the following subjects: Formation and mitigation of mountain hazards Degradation and reconstruction of mountain environment Evaluation, planning and sustainable development of eco-environment, Remote-sensing, mapping, GIS, and Agroecology .

#B14 Sichuan Metallurgical Geological Survey and Design Group Co. Ltd

www.yksjjt.com
scstyt@163.com

Sichuan Metallurgical Geological Survey and Design Group Co., Ltd. was founded in 1985, formerly known as Southwest Survey Basic Engineering Corporation of Ministry of Metallurgical Industry. In 2001, it was renamed Sichuan Shutong Geotechnical Engineering Company. In 2020, it completed the corporate restructuring and was renamed Sichuan Metallurgical Geological Survey and Design Group Co., Ltd. The company has 650 employees, including 7 professor-level senior engineers, 122 senior engineers and

170 engineers. The company has a total of Grade A comprehensive engineering survey, Grade A survey, design, construction and evaluation of ground disaster prevention projects, covering more than 30 qualifications in five major systems, namely residential construction, water conservancy, agriculture, natural resources and ecological environment, and its business covers six major sectors: planning and design, ecological environment, comprehensive survey, ground disaster prevention and control, general contracting and geographic information digitization. Focus on providing customers with consulting, survey, design, construction, supervision, operation as one of the professional and technical services.

#B15 GDEM Technology, Beijing, Co., Ltd.

www.gdem-tech.com
info@gdem-tech.com
Established in 2010, GDEM Technology, Beijing, Co., Ltd. is a 3A Credit-rated high-tech enterprise specializing in the research & development and sales of high-performance parallel CAE numerical simulation software in the field of engineering computation. With over 60 registered software copyrights, the company is committed to delivering comprehensive solutions for high-performance computing.

#B16 Deep Underground Science and Engineering

https://onlinelibrary.wiley.com/journal/27701328
duse@cumt.edu.cn
Deep Underground Science and Engineering (DUSE), as a new international and fully open access journal, aims to build a mainstream academic exchange platform focusing on forefront research, and to become a world-class scientific and technological journal. DUSE is currently indexed in prominent databases: Scopus, DOAJ, CNKI et al. The DUSE publishes the papers on important theoretical breakthroughs, valuable reviews of state-of-the-art, or discussions on the latest innovative, prospective, and leading achievements in the field of Deep Underground Science and Engineering. Papers on core fundamental research, revolutionary technology development, major engineering construction, special environmental effects, and other important related studies are also solicited.

#B17 Shanxi Metallurgical Geotechnical Engineering Exploration Co., Ltd.

Geological Research Bld. of NO.3 Bureau of China Metallurgical Geology Bureau, No.107, Longcheng Street, Taiyuan, China
www.sxyt.com
sxytzgs@126.com
Shanxi Metallurgical Geotechnical Engineering Exploration Co., Ltd. is a national high-tech enterprise, which is a state-owned enterprise subordinate to the No.3 Bureau of China Metallurgical Geology Bureau (China Metallurgical Bureau Group Co., Ltd.), and was founded in 1990, headquartered at No.107, Longcheng Street, Taiyuan City. The company has the qualification of Class I Specialized Contractor for Foundation Engineering, Class A Comprehensive Engineering Exploration, Class A Geological Hazard Prevention and Control Unit for Danger Assessment, Prospection, Design and Construction, Class A Geological Drilling (Pit) Exploration, Class II General Contractor for Construction, Municipal Public Works, Water Conservancy and Hydroelectricity Engineering, and Class II Specialized Contractor for Environmental Protection Engineering, etc.

#B18 Chengdu Donghua Zhuoyue Technology Co., Ltd.

719960671@qq.com
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#B19 Editorial Office of Earth Science, China University of Geosciences (Wuhan)

Editorial Office of Journal, China University of Geosciences, Yujiashan, Wuhan, China
www.earth-science.net
xbb@cug.edu.cn
JES is a bimonthly geological journal which reports essential and original academic research results in all fields of earth sciences. It has been indexed by SCI since 2007. It was started in cooperation with Springer in 2009.

#B20 Sichuan OST Slope Protection Engineering Co. Ltd.

Room B1308, AVIC City Plaza, No. 88, Middle Section, Fucheng Avenue, High-tech Zone, Chengdu, China
www.ostbp.com
ost@ostbp.com
Founded in 2005, Sichuan OST Slope Protection Engineering Co. Ltd. is a leading high-tech enterprise, specializing in rockfall protection products design, development, manufacturing, geological survey, consulting and installation. We have developed a series of products, such as Guiding Protection System(GPS), Passive Protection System(PPS), Active Protection System(APS), Flexible Protective Shed- tunnel, Flexible Grid and so on, which are widely used in the industry of railway, highway, hydro-power and geohazards prevention.

#B21 Multi-scale Seismic Detection and Monitoring System

Email: 54yingchen@163.com
The team takes the Multi-scale Seismic of Detection and Monitoring as their object for more than ten years, and developed a systematic structure including seismic triggering mechanism, acquisition/processing technologies and software by combining the research of Theory and Technology, Micro-scale and Macro-scale, Simulation and

Observation, Experiment and Engineering. Their technologies and products have been widely applied in scientific study in laboratory, quality evaluation of petroleum exploitation and development, and early warning of risk both for surface and underground engineering.

#B22 Chengdu University of Technology, Institute of Sedimentary Geology

The Sedimentary Geology Research Institute is currently the only institution specializing in cultivating high-level talents and scientific research in sedimentary geology in terms of colleges and universities in China. It is one of the first batch of master's and doctoral degree authorization programs for this discipline in China. At present, it has two doctoral degree authorization programs for first-level disciplines, namely geology, geological resources and geological engineering, two postdoctoral research stations, and 2 provincial and ministerial key disciplines, namely sedimentology (incl.: paleogeography), and paleontology and stratigraphy, and is one of the main supporting units for the construction of the State Key Laboratory of Oil and Gas Reservoir Geology and Development Engineering, Double First-class Discipline (Geological Resources and Geological Engineering), State Key Discipline of "Geological Resources and Geological Engineering", State Key Discipline of "Mineralogy, Petrology and Mineral Deposit Science" (Cultivation Discipline), National Characteristic Major of "Resource Exploration Engineering" and National First-class Major of "Geology".

#B23 College of Earth Sciences, Chengdu University of Technology

https://ces.cdut.edu.cn/

The College of Earth Sciences of the Chengdu University of Technology is one of the oldest backbone colleges of the university, whose predecessor was the Geology Department of Chongqing University established in 1929. The College of Earth Sciences was established in 2002. After more than 60 years of development, it has become the most comprehensive teaching and research base for geological disciplines in western China. The College of Earth Sciences is one of the main units involved in the building of the university's "Double First Class".

#B24 College of Environment and Civil Engineering, Chengdu University of Technology

https://cece.cdut.edu.cn/

The College of Environment and Civil Engineering was established in 1956. It has six departments, one State Key Laboratory, one national experimental teaching demonstration center, and one national virtual simulation experiment teaching center, etc. The college currently has 192 staff members. In the past two decades, the college has won two first prizes for the National Science and Technology Progress Award, one National Science and Technology Cooperation Award, dozens of provincial and ministerial scientific and technological achievement awards.

#B25 College of Ecology and Environment, Chengdu University of Technology

https://sthjxy.cdut.edu.cn

The College of Ecology and Environment at CDUT was established in 2017, with a national first-class undergraduate major (i.e., Environmental Engineering) and a first-class discipline construction point in Sichuan Province (i.e., Environmental Science and Ecology). According to the ESI (Essential Science Indicators) database in March of 2022, CDUT entered the top 1% of the world in ESI rankings in the field of environment/ecology research.

#B26 College of Geophysical, Chengdu University of Technology

#B27 National Key Laboratory of Oil and Gas Reservoir Geology and Exploitation

www.sklg.cdut.edu.cn

Petrolab@cdut.edu.cn

National key laboratory of oil and gas reservoir geology and exploitation, jointly built by Southwest Petroleum University and Chengdu University of Technology, was approved by the state for project establishment in 1989.The laboratory relies on the construction of the first batch and second round of "Double First Class" disciplines "Petroleum and Natural Gas Engineering" and "Geological Resources and Geological Engineering" in China. The four disciplines supported by the laboratory, namely "Engineering", "Chemistry", "Materials Science", and "Earth Science", have entered the top 1% of ESI globally. The laboratory has always shouldered the mission of national oil and gas strategic scientific and technological strength, closely focusing on the national oil and gas development and security strategic goals of "stabilizing the east and accelerating the west", conducting applied basic research, breaking through the basic cutting-edge technologies that lead development and key core technologies with first-mover advantages, which has made irreplaceable contributions to the sustained and stable development of China's oil and gas industry.

#B28 Academic Journal Center, Chengdu University of Technology

https://qkzx.cdut.edu.cn/

Academic Journal Center pursues serving and supporting the development of academic journals. The center includes following academic journals: Journal of Chengdu University of Technology(Science & Technology Edition), Journal of Mineralogy and Petrology, Journal of Geological Hazards and Environmental Protection, Computing Techniques for Geophysical and Geochemical Exploration, Journal of Chengdu University of Technology(Social Sciences), and Scientific and Technological Management of Land and Resources. Furthermore, the center collaborates with Elsevier to host the international academic journal Ore and Energy Resource Geology.

#B29 Chengdu University of Technology Alumni Association (CDUTAA)

Sponsors, Exhibitors and Acknowledgements

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CHINA ORDNANCE INDUSTRY SURVEY AND GEOTECHNICAL INSTITUTE CO.,LTD

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The 2nd Geological Brigade of Sichuan

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OSTS
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SICHUAN OST SLOPE PROTECTION ENGINEERING CO.,LTD

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SHANXI METALLURGICAL ROCK—SOIL ENGINEERING INVESTIGATION CO.,LTD

SHANXI METALLURGICAL ROCK—SOIL ENGINEERING INVESTIGATION CO.,LTD. was established in 1990 with a registered capital of 110 million yuan, headquartered in No. 107 Longcheng Street, Taiyuan City. It is a national high-tech enterprise and a wholly state-owned enterprise affiliated to NO.3 BUREAU OF CHINA METALLURGICAL GEOLOGY BUREAU.

The company has the qualification of Class I Specialized Contractor for Foundation Engineering, Class A Comprehensive Engineering Exploration, Class A Geological Hazard Prevention and Control Unit for Danger Assessment, Prospection, Design and Construction, Class A Geological Drilling (Pit) Exploration, Class II General Contractor for Construction, Municipal Public Works, Water Conservancy and Hydroelectricity Engineering, and Class II Specialized Contractor for Environmental Protection Engineering, etc.

The company currently has 819 professional and technical personnel, including 5 professor level senior engineers, 80 senior engineers, and 319 intermediate engineers. There are 212 registered personnel of various types, including 13 registered civil engineers (geotechnical), 13 registered cost engineers, 20 certified safety engineers, and 155 registered constructors and associate constructors.

The company has 19 branches located in Shanxi, Tianjin, Henan, Ningxia, Xinjiang, Guizhou, Yunnan, Sichuan, Shenzhen, and other places.

The company is based on three major areas of engineering construction, geological disaster prevention and ecological civilization construction in its development, leveraging its professional advantages to serve the government and society, making contributions to public infrastructure construction, landmark engineering construction, protection and restoration of the ecological environment, and improvement of the living environment.

Our company has a sound organizational structure and standardized management system, adhering to the core values of "realistic, innovative, law-abiding, cooperation" , pursue the business philosophy of"build a project, establish a brand, make a friend" , adhere to the "highly responsible, hard-working" geotechnical spirit, "Shanxi Geotechnical" looking forward to cooperating with you sincerely, create brilliant.

Contact us：
Address: No.107 Longcheng Street, Taiyuan City
TEL：0351-2509034　Postcode：030000
General Manager：Shen XinKai
Mobile phone：15235163199　13485352061
Web site：www.sxyt.com

SCRG

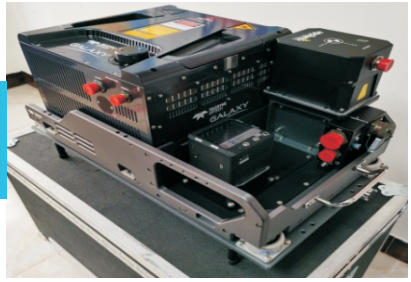
Sichuan Metallurgical Prospecting and Design Group Co., Ltd.

Sichuan Metallurgical Prospecting and Design Group Co., Ltd., established in 1985, is a subsidiary of Sichuan Natural Resources Investment Group Co., Ltd. The group possesses comprehensive qualifications in engineering investigation and geological hazard prevention, with Class A qualifications that extend across five systems—construction, water conservancy, agriculture, natural resources, and ecological environment—encompassing more than 20 areas. Our services span planning and design, ecological environment, comprehensive investigation, geological hazard prevention, general contracting, and geographical information digitization. We strive to provide our customers with professional technical services that integrate consulting, investigating, designing, constructing, supervising, and operating, aiming to be a top-tier "Green Mineral Supplier" and "Comprehensive Natural Resource Service Provider" nationwide.

The group has obtained 8 national invention patents, 20 utility model patents, and 22 software copyrights. Additionally, the group actively participates in the formulation of industry and local technical standards, such as Design Specification for Geological Disaster Prevention of Oil and Gas Pipeline Engineering, Construction and Acceptance Procedures for Vibration (Impact) Sinking Pipe Pile, Technical Specification for Large Diameter Plain Concrete Pile Composite Foundation in Sichuan Province, Quality Acceptance Standard for Building Slope Engineering in Sichuan Province, Construction Process Specification for Foundation and Base Construction in Sichuan Province, and Technical Regulations for Rotary Drilling Pile Foundation in Sichuan Province, among others.

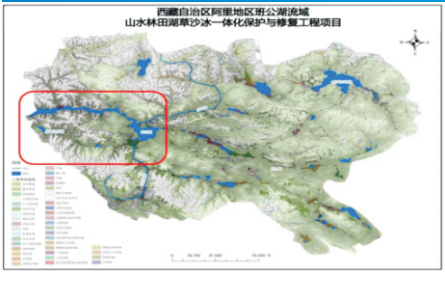
Typical Equipment:

Optech Galaxy T2000 from Canada

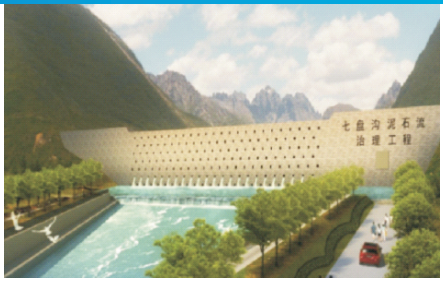


AMC5100 Tilt Aerial Camera

Typical Projects:



Integrated Protection and Restoration Project of Water, Forest, Field, Lake, and Grass in Ali, Tibet



Qipan Gully Debris Flow Control Project

Survey of the China–Myanmar Oil and Gas Pipeline

四川省第二地质大队
The 2nd Geological Brigade of Sichuan

Company Introduction

The 2nd Geological Brigade of Sichuan, affiliated to Sichuan Geological Bureau, is a second-level public institution under Sichuan provincial administration. It's mainly responsible for basic, public welfare, strategic and other geological technical services and support work. With 20 enterprises represented by Sichuan Geological Engineering Group Co., Ltd., it owns 7 scientific research platforms such as Sichuan Geological Resources, Environment and Engineering Innovation Center, 9 core technical teams, 1 national laboratory, and 13 Grade A qualifications such as geological disaster and surveying; it is a comprehensive geological prospecting team with professional advantages in geological prospecting, hydraulic environmental geology, ecological remediation, geological disaster prevention, surveying and mapping, engineering construction, ecological restoration, inspection and testing. The 2nd Geological Brigade of Sichuan has won the first national science conference award, the honor of a meritorious unit in the national geological exploration, a special advanced collective in the national crisis mine replacement resources prospecting, a national model unit in geological prospecting, a winner of Sichuan science and technological progress award, and other awards, wherein emerged outstanding talents such as winner of the Li Siguang Geological Science Award, a top craftsman of the Great Power, and winner of the National May 1st Labor Award, and leaders in Sichuan's science and technology sector, among others.

Key Projects Demonstration

Surveying and Measurement-Photorealistic 3-D Scene Applied for Qingping Phosphate Mine in Deyang City, Sichuan Province

Ecological Conservation- The First Bay of The Yellow River

Hydraulic, Engineering & Environmental Geology - The Upper Water and Rock Division Zone for Wen Jiagou Giant Debris Flow Control Engineering Project at Qingping Mianzhu City, Sichuan Province

Geological Prospecting- The Commencement Ceremony of the first well drilling at liuchi District for the Potash Deposits at Xuanhan County

MACCAFERRI

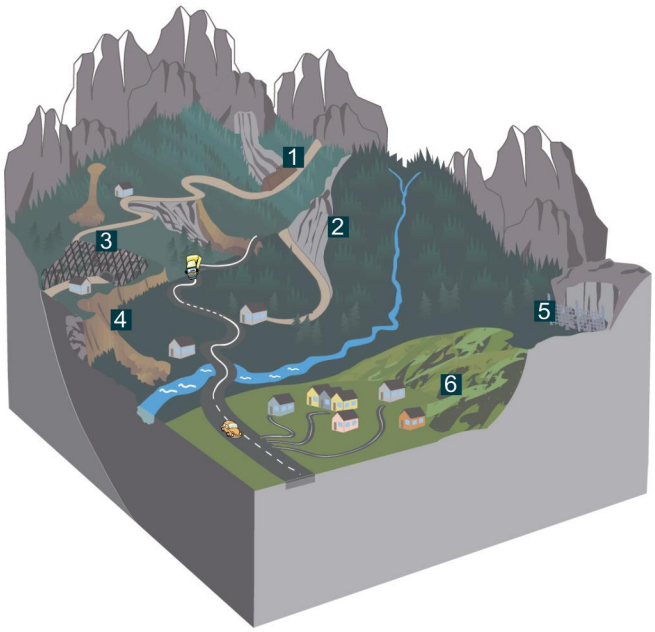
NATURAL HAZARD AND ROCKFALL MITIGATION SYSTEMS

Maccaferri over 60 years' experience, our rockfall protection and natural hazard mitigation systems are key elements in the security and safety of people,roads,railways, mining operations and property.

We offer a wide range of engineered systems, certified and tested by leading institutes, in accordance with the latest standards.

Developed in conjunction with engineers and contractors, Maccaferri's Rockfall Systems are durable, effective, and simple to install.

Operating in over 100 countries and with 30 factories worldwide, we can provide engineering support and product availability across 5 continents.



1 Rockfall and Landslide Embankments

4 Debris Flow & Shallow Landslides

2 Mesh Systems - Simple Drapery

5 Dynamic Rockfall Barriers

3 Mesh Systems - Secured Drapery / Surface Stabilisation

6 Soil Nailing and Surface Protection

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四川奥思特边坡防护工程有限公司

SICHUAN OST SLOPE PROTECTION ENGINEERING CO.,LTD

Sichuan OST Slope Protection Engineering Co. Ltd. is a high-tech enterprise, specializing in rockfall protection products design, development, manufacturing, geological survey, consulting and installation. Keeping up with the latest international technology,
we have developed a series of products, such as Guiding Protection System(GPS), Passive Protection System(PPS), Active Protection System(APS), Flexible Protective Shed- tunnel, Flexible Grid and so on, which are widely used in the industry of railway, highway, hydro-power and geohazards prevention.

OSTS®
四川奥思特边坡防护工程有限公司
SICHUAN OST SLOPE PROTECTION ENGINEERING CO.,LTD

Address: Room B1308, AVIC City Plaza, No. 88, Middle Section, Fucheng Avenue, High-tech Zone, Chengdu, China
Tel: +86 (0)28-86916581

海卓同创
Hydro-Tech Marine

星辰测绘
Xingchen surveying and mapping

Company Profile

Hydro-Tech is dedicating in underwater exploration territory, the company is accredited as national high-tech enterprise and "industrial expertise" enterprise with complete independent controlled technologies and pursuing for continuous innovation.Headquarters is located in Beijing so is the hardware R&D center, one software R&D center in Qingdao city one modernized production and testing base in Tianjin city.

Product Introduction

Multibeam echo sounder

Side scan sonar

Sound velocity sensor

Imagining sonar

Inertial navigation system

Tel: 13980958886 E-mail :469358689@qq.com

Sponsor

- International Association for Engineering Geology and the Environment (IAEG)

Organizers

- IAEG China National Group
- Engineering Geology Commission, China Geology Society
- State Key Laboratory of Geohazard Prevention and Geoenvironment Protection, Chengdu University of Technology
- Young Education & Consultancy Co., Ltd.

XIV IAEG CONGRESS

ENGINEERING GEOLOGY FOR A HABITABLE EARTH