

Birawa Assembly Hall, Hotel Bidakara Jakarta, Indonesia 11-13 November, 2024

#### **ORGANIZER:**



#### **SUPPORTED BY:**















Birawa Assembly Hall, Hotel Bidakara Jakarta, Indonesia 11-13 November, 2024

#### **CALL FOR PARTICIPATION:**

The Indonesian Society of Geotechnical Engineering (ISGE) is honored to host the 10th Asian Young Geotechnical Engineer Conference (AYGEC) alongside the 28th Annual ISGE Conference (PIT). The event, themed "Geotechnics Revolution: Redefining the Future of Infrastructure", is scheduled to take place at Hotel Bidakara, Jakarta, on 11-13 November 2024. With optional site visit on the 14 November 2024.

Since its establishment in 1991, AYGEC has played a pivotal role in sharing knowledge, fostering professional growth, and encouraging collaboration. The 10th AYGEC aims to provide a vibrant platform for young professionals aged 36 and under to delve into the frontiers of geotechnical engineering. A highlight of the conference will be the **Bright Spark Lecture**, offering emerging talents a chance to shine. Member Societies are encouraged to submit numerous papers for AYGEC and nominate up to three candidates for the Bright Spark Lecture, with two eventual winners having the opportunity to present a plenary session and receive cash prizes.

The 28th Annual ISGE Conference (PIT) will coincide with this event, attracting approximately 700 participants from across Indonesia and abroad to share insights from diverse fields. Individuals over 36 years from Member Societies are also welcomed to participate in PIT and engage in the geotechnical engineering conference in Indonesia.

Participants of both AYGEC and PIT will partake in a range of insightful activities, including keynote speeches by upcoming young geotechnical researchers and esteemed senior scholars. Embark on a captivating excursion to the heart of Jakarta with a potential visit to the Jakarta MRT, offering a firsthand view of pioneering infrastructure projects.

We cordially invite all geotechnical engineers, irrespective of their backgrounds, to join this exceptional gathering. Together, we will address the challenges of the future - from climate change to natural resource depletion - and build connections that illuminate the path to a brighter tomorrow. We eagerly look forward to your involvement.

# **CONFERENCE SCHEDULE:**

Latest Paper Submission: 31 August 2024

Review Results (by e-mail):

Wave 1): <del>31 July 2024</del>

Wave 2): 20 September 2024

Camera-Ready Paper: 20 October 2024

Conference Registration (Early Bird):

Open Now - 30 September 2024

Conference Registration (Standard Rate): 1 October 2024 - 11 November 2024

# **CONTACT:**

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# MAIN TOPICS AND SUBTOPICS:

#### **MAIN-TOPICS:**

- Achieving sustainability in Geotechnics
  - Adapting Design to Climate Change
  - Bio Geotechnics
  - Dam Embankment Engineering
  - Environmental Geotechnics
  - Ground Subsidence and Sea-Water Intrusion
  - Underground Construction
- Building Information Modelling
- Machine Learning and AI in Geotechnical Engineering
- Robust and Resilient Geo-Structures
  - o Earthquake Resistant Structures
  - Minimizing Impact of Tunneling
  - Trenchless Technology for Urban Development

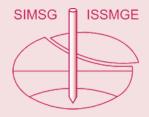
#### **SUB-TOPICS:**

- Ground Improvement and Soft Soils
- Foundation Engineering
- Land Reclamation
- Physical & Numerical Modelling
- Sedimentary and Residual Soils
- Slope Stability
- Soil Characterization
- Unsaturated Soil Mechanics

#### **PUBLICATION OPPORTUNITIES:**

- Indonesian Geotechnical Journal
- Proceeding PIT HATTI XXVIII
- Journal of Geo-Engineering
- Journal of Civil Engineering Forum

#### **SUPPORTED BY:**













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# \*BUILDING A SOLIT PROGRAM OUTLINE:

11 Nov 07.30 - 09.00 Registration & Opening Session

09.00 - 12.30 AYGEC Keynotes (I, II, III)

12.30 - 13.30 Lunch Break

13.30 - 16.30 Parallel Sessions &

**Bright Spark Lecture Selections** 

16.45 - 18.30 AYGEC Keynotes (IV, V)

18.30 - 19.00 Break

19.00 - 21.00 Gala Dinner

12 Nov 08.00 - 12.15 AYGEC Participants Site Visit

12 Nov 07.30 - 09.15 Registration & Opening Session for

PIT Participants

09.15 - 12.15 PIT Keynotes (VI,VII,VIII, IX)

12.15 - 13.30 Lunch Break (AYGEC + PIT Participants)

13.30 - 17.00 PIT Keynotes (X, XI, XII)

17.00 - 17.30 Closing of Day 2

17.30 - 20.00 National Congress (ISGE Members only)

13 Nov 08.00 - 11.00 Parallel Sessions

11.00 - 13.00 Lunch Break

13.00 - 14.30 Bright Spark Lecture

15.00 - 16.15 PIT Keynotes (XIII, XIV)

16.15 - 16.45 Closing Ceremony

16.45 - 17.30 Sharing & Feedback Session

17.30 - 18.00 Door Prizes & Gifts

#### **REGISTRATION IS ALREADY OPENED**



# **BRIGHT SPARK LECTURE SELECTION PROCESS**

- Papers submitted are reviewed and scored by reviewers
- Finalists selected by AYGEC review committee
- Finalists present their work in parallel session (11 Nov), and 3 winners will be selected by juries
- Juries consist of AYGEC keynote speakers, VP Asia, and President of ISGE

#### **CONFERENCE VENUE:**

Bidakara Hotel, Jakarta, Indonesia



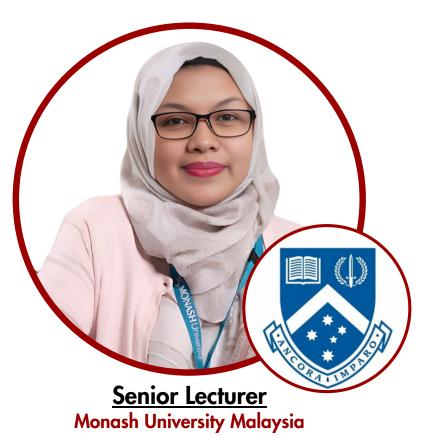






Jakarta, Indonesia 11-13 November, 2024

### **OUR AYGEC KEYNOTE SPEAKERS:**



#### DR. VIVI ANGGRAINI

Anggraini obtained her Ph.D. from University Putra Malaysia in 2015. She is now a senior lecturer at Monash University Malaysia. Dr. Anggraini is also a committee member of the International Geosynthetic Society (Malaysia Chapter).

Dr. Anggraini's research interests are in the areas of ground improvement, environmental geo-material, geotechnics, carbon sequestration, landfill liners. soft-soil treatment, etc. Her groundbreaking work is olivine treated marine clay to serve as a selfsealing liner material. The olivine liner also doubles function to sequester carbon dioxide emissions in landfill.

Dr. Anggraini's keynote is entitled:

"Olivine: A sustainable approach to marine clay stabilisation and carbon capture".

# PROF. CHING HUNG

Prof. Hung is a full professor in the National Cheng Kung University (NCKU), Taiwan. His research centers on geohazards and geosynthetic reinforced soil structure, integrating field exploration, numerical simulation, life cycle analysis, and AI.

Prof. Hung has earned numerous awards, including 2018 Young Scholar Fellowship - a 1.2 million USD research grant from the National Science and Technology Council and Ministry of Education in Taiwan. He is also a recipient of the Bright Spark Lecture in 2019.

Prof. Hung academic contribution extends to editorial roles, serving as editor, guest editors, and editorial board member for various journals and special issues.

Prof. Hung's keynote is entitled:

"Mitigating landslides: from numerical modelling to Al-integrated hands-on experiments"





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### **OUR AYGEC KEYNOTE SPEAKERS:**



#### DR. VIROON KAMCHOOM

Dr. Viroon is an Associate Professor and the head of Excellent Centre for Green and Sustainable Infrastructure at King Mongkut's Institute of Technology Ladkrabang. His research focus on implementing sustainable solutions to improve infrastructure resilience in confronting extreme weather and climate change. These research have been supported by funding from Thailand Research Fund, National Natural Science Foundation of China and various overseas research grants.

Dr. Viroon is also a geotechnical consultant and has participated in major infrastructure projects in East and Southeast Asia. These include the water diversion tunnel for Bhumibol dam, Klong Taweewattana, Hong Kong third airport runway, etc. He is currently a member of Thai Geotechnical society, TC104 (Physical Modelling) and TC106 (Unsaturated Soils) of ISSMGE.

Dr. Kamchoom's keynote is entitled:

"Nature-based solutions for enhancing infrastructure resilience under climate variability".

### DR. LINDUNG ZALBUIN MASE

Dr. Mase is an Associate Professor at Department of Civil Engineering, University of Bengkulu, Indonesia. His main research interests are soil dynamics and earthquake engineering. Dr Mase postdoctoral researcher at Centre of Excellence in Geotechnical and Geo-environmental Engineering, Chulalongkorn University from 2018 to 2019. In 2022, Dr Mase entered the ranks of the world's top researchers by winning the title of "World's Top 2% Scientists" for the field of geological and geomatics engineering released by Elsevier. In 2024, Dr Mase was awarded the Academic Award from the Japanese Geotechnical Society (JGS) for publication entitled "Liquefaction analysis of Izumio sands under variation of ground motions during a strong earthquake in Osaka, Japan" published in Soils and Foundations (Elsevier).

Dr. Mase's keynote is entitled:

"Integrated approach to assess soil liquefaction potential during earthquake"





Jakarta, Indonesia 11-13 November, 2024

### **OUR AYGEC KEYNOTE SPEAKERS:**



#### DR. ANTHONY KWAN LEUNG

Dr. Leung is an Associate Professor and the Director of the Geotechnical Centrifuge Facility at the Hong Kong University of Science and Technology (HKUST). His research interest is soil-vegetation interaction with emphasis on geotechnical engineering applications.

Dr. Leung is the awardee of the 2022 Geotechnical Research Medal of the ICE 2022 Outstanding Publishing, Young Geotechnical Engineer Award of the ISSMGE, and 2019 Bright Spark Lecture. He is currently an Associate Editor of Geotechnique and an editorial board members of Canadian Geotechnical Journal, the General Secretary of the Hong Kong Geotechnical Society (HKGES), TC106 (Unsaturated Soils), and TC107 (Tropical & Residual Soils).

Dr. Leung's keynote is entitled:

"Eco-Geotechnics for sustainable urban environment: from theories to practice"

Science and Technology **OUR ANNUAL ISGE CONFERENCE (PIT) KEYNOTE SPEAKERS:** 

# PROF. KEH-JIAN (ALBERT) SHOU

Prof. Shou is a Professor at the National Chung-Hsing University, Taiwan and the current ISSMGE Vice-President of Asia. He is also the Vice Chairman of International Society for Trenchless Technology, Honorary President of Chinese Taipei Society for Trenchless Technology, and Director of Chinese Taipei Geotechnical Society.

Prof. Shou obtained his Ph.D. degree from University of Minnesota, USA, in 1993 and has vast experience both in academic and practice, encompassing experiences from three continents.

Prof. Shou research interests include not only geotechnical engineering, but also rock mechanics, geohazards, and trenchless technology. He has published more than 200 articles on these topics.

Prof. Shou's keynote is entitled:

"Impact of Climate Change Landslide on Susceptibility and Resilience"





Jakarta, Indonesia 11-13 November, 2024

### **OUR ANNUAL ISGE CONFERENCE (PIT) KEYNOTE SPEAKERS:**



#### PROF. TRI HARIANTO

Dr. Eng. Tri Harianto is a Professor in Geotechnical Engineering, Civil Engineering Department, Hasanuddin University, Indonesia. currently the head Geoenvironmental Engineering Laboratory. His major research topic is soil improvement, including soil reinforcement and stabilization. He is also involved in research projects with external institutions in both the government and private sectors.

Prof. Tri Harianto was also invited to be a visiting professor at Saga University, Japan, in 2011 and 2017-2018. He joined the visiting researcher program at Melbourne University, Australia (2004), and Yamaguchi University, Japan (2016).

Prof. Tri Harianto's keynote is entitled: "Challenges and **Innovations** Biocementation Soil Improvement"

### DR. ZHANG WENGANG

Dr. Zhang Wengang is currently full professor in School of Civil Engineering, Chongqing University, China. His research interest focus on Underground Engineering, Engineering, Slope Bio-inspired Geotechnics, as well as big data and machine learning in geotechnics and geoengineering. He serves Geoscience Frontiers & Machine Learning and Data Science in Geotechnics as associate editors, and is editorial board members for journals of Computers and Geotechnics, Journal of Rock Mechanics and Geotechnical Engineering, Georisk and Bulletin of Engineering Geology and the Environment.

Dr Zhang has been selected as 2021-2023 Highly cited Chinese Scholars, as well as 2023 Clarivate Highly cited Researchers with h-index of 58. He won Computers and Geotechnics Outstanding Paper Award, 2021 Underground Space Outstanding Paper Award, Georisk Most Cited Paper Award 2021, Fok Ying Tung Education Foundation Award: Young Scientist Award for Colleges and Universities, as well as nd the 2023 Clarivate Analytics Global Highly Cited Researcher

Prof. Zhang's keynote is entitled:

"Determination of Reasonable Soil Cover Thickness Considering Shield Tunnel Anti-Floating Stability"



**Chongging University** 



Jakarta, Indonesia 11-13 November, 2024

### **OUR ANNUAL ISGE CONFERENCE (PIT) KEYNOTE SPEAKERS:**



**Management Board** 

**Bauer** 

#### DR. KARSTEN BECKHAUS

Dr. Karsten Beckhaus, has been involved in the Deep Foundation Industry for 21 years and has been working in the structural engineering business for more than 30 years. Karsten obtained his University degree in Civil Engineering, and later his doctoral degree, from the Technical University in Munich, Germany.

He is now member of the management board of BAUER Spezialtiefbau GmbH and responsible for the Quality Management and the Technical Support division which assists Bauer's projects worldwide. Dr. Beckhaus also sustainability and standardization, amongst others for standards on design and execution of special geotechnical works. Since 2014, Karsten chairs the joint Concrete Task Group of EFFC and DFI. He's also chairman of the Working Group for revision of European Norms for the Execution of Bored Piles and Diaphragm Walls, ie EN 1536 and EN 1538.

Dr. Beckhaus's keynote is entitled:

"An Offshore Windfarm Founded from The Seabed A Geotechnical Solutions at Their Best"

#### PROF. MASYHUR IRSYAM

Prof. Irsyam is a professor in Bandung Institute of Technology and is the immediate past president of ISGE, serving from 2009-2017.

Prof. Irsyam obtained his Ph.D. from University of Michigan, USA in 1991. Prof. Irsyam has a strong passion in earthquake engineering and is actively involved in many research and related activities, such as leading the team to develop the National Seismic Hazard Maps of Indonesia, committee member for the Development of Sustainable Earthquake Resilience Infrastructure Code, advisor for earthquake disaster management, etc.

Prof. Irsyam has authored more than 200 articles and has received numerous award, including Engineering Honor Society, Tau Beta Pi Association.

Prof. Irsyam's keynote is entitled:

"An Efficient Algorithm for Selection of Ground Motion Set for Near-Fault and Non Near-Fault Site in Indonesia"



Bandung Institute of Technology



Jakarta, Indonesia 11-13 November, 2024

### **OUR ANNUAL ISGE CONFERENCE (PIT) KEYNOTE SPEAKERS:**



#### PROF. WIDJOJO ADI PRAKOSO

Prof. Prakoso is a professor in University of Indonesia and the current president of Indonesian Society for Geotechnical Engineering, serving since 2017.

Prof. Prakoso obtained his Ph.D. from Cornell University, USA, in 2002. After working as a senior geotechnical engineer in New York, Prof. Prakoso returned to his home country and embarked his academic career in University of Indonesia. He has a great interest in engineering education and his research interests are foundation engineering, geotechnical earthquake engineering, reliability-based geotechnical engineering.

Prof. Prakoso has authored more than 120 articles and serves as a member in several government review panels.

Prof. Prakoso's keynote is entitled:

"On Redundancy in Elevated CSP (Concrete Spun Pile)-Pile Groups for Bridges"

#### DR. CLARENCE CHOI

Clarence Choi is Assistant Professor of Civil Engineering at the University of Hong Kong. His research focuses on mitigation of landslide hazards and ground improvement.

Clarence was awarded the 2023 Outstanding Young Engineer of the Year Award by the Hong Kong Institution of Engineers (HKIE), 2022 Oldrich Hungr Award by the International Consortium of Landslides (ICL) of UNESCO, the Third Hutchinson Lecture by The Federation of International Geo-Engineering Societies (i.e., ISSMGE, ISRM, IEAG, and IGS), and Bright Spark Award by ISSMGE.

His journal papers have been awarded the Telford Premium Prize by the Institution of Civil Engineers, UK, R.M. Quigley Award by the Canadian Geotechnical Society, Best Paper in and Landslides of ICL, UNESCO. Geotechnical Paper Award by HKIE.

Dr. Choi's keynote is entitled:

"Engineered- and Nature- based Solutions against Flow-type Landslide Hazards"



**Assistant Professor** University of Hong Kong



Jakarta, Indonesia 11-13 November, 2024

# **SITE VISIT OPTIONS:**



**CP 203 - GLODOK MRT STATION** 

The Jakarta MRT construction Phase 2A is a 5.8 km MRT line consisting of 7 stations: Thamrin, Monas, Harmoni, Sawah Besar, Mangga Besar, Glodok and (Beos). contract The is valued approximately IDR 4.6 trillion (USD 280 million) and has a construction timeline of 72 months (September 2021 – August 2027). The Jakarat MRT Project aligns with the old city planning concept, emphasizing development of pedestrian area and traffic engineering management.

The **Glodok station** which participants will visit in November is part of CP203 contract package (one of the six contract packages for Phase 2A). CP203 involves the construction of Glodok and Kota stations as well as 1.4 km from Managa Besar to CP203 cultural prioritizes heritage preservation as the tunnel will traverse several cultural heritage sites, including the Sarinah Building, Museum of Bank Indonesia, Chandranaya Building, Pantjoran Tea House, Bank Mandiri Museum, Thamrin Clock Monument. In order to preserve the integrity of heritage buildings, The CP203 construction will incorporate a Sunken Entrance design, featuring lower-than-usual entrances. Completion of CP203 aims to revitalize the historical and cultural areas along its route.

Participants will be able to see firsthand the 240 m long underground Glodok Station in the midst of its construction. It is projected that the tunneling to Kota Station will also be completed by then. Participants who have not experienced underground **construction** is highly encouraged to attend this site visit.



#### **NEW PRIOK CONTAINER TERMINAL PROJECT**

Located on northern part of Jakarta, New Priok Container Terminal Project (NPCT), is one of the vast maritime infrastructure works in Indonesia. The whole project was planned in 2007 and begun its construction in 2013. After years of planning and construction, NPCT Phase 1 has been officially operating since 2018, while NPCT Phase 2 & 3 is currently under development and later intended to significantly increase the capacity of the other existing ports within the region.

Different from NPCT 1 which is fully constructed with of deck-on-pile system, NPCT 2 & 3 is built with reclamation method. Unlike the usual work, the reclamation itself considers the use of seabed material taken from dredging work of Phase 1 for its reclamation body. The original seabed is mainly composed of soft marine clay, making treatment of the reclaimed fill quite challenging.

Various geotechnical aspects have been considered in NPCT 2 & 3 since the beginning of its construction. Rigorous study had been conducted to determine the complex parameters of ultra soft soil, followed by the application of advanced ground improvement methods to treat the mudlike material. Ground improvement techniques include: double-staged adopted vacuum preloading technique and deep soil mixing. Structure-related innovations were also used, including combi-wall for jetty structures and quay walls, as well as application of bamboo matclusters for breakwater foundations.

Participants will be able to inspect how various geotechnic and structural innovations can be used to reclaim land over ultra-soft material.



Birawa Assembly Hall, Hotel Bidakara Jakarta, Indonesia 11-13 November, 2024

# **REGISTRATION FEE:**

#### **FOREIGN PARTICIPANTS:**

Early Bird Standard Rate
Before September 30, 2024 After September 30, 2024

	Foreigners (Price in USD) - For AYGEC (11 <sup>th</sup> -13 <sup>th</sup> Nov)				
AYGEC (11th-13th Nov)	36 years old and younger <sup>a</sup>	250	300		
	37 years old and above <sup>b</sup>	300	400		
	Site visit for (37 years and above) <sup>c</sup>	30	Closed		
	Note:				
	a. Includes Gala Dinner & Site Visit on 12 <sup>th</sup> Nov for first 50 participants				
	b. Includes Gala Dinner				
	c. Site visit on 14 <sup>th</sup> Nov				

#### Additional Gala dinner for Spouse/Partner will be charged \$30

#### **LOCAL PARTICIPANTS:**

Early Bird Standard Rate
Before September 30, 2024 After September 30, 2024

	Indonesian - For AYGEC (11 <sup>th</sup> -13 <sup>th</sup> Nov) Price in IDR			
AYGEC (11th-13th Nov)	36 years old and younger	1,500,XXX	1,800,XXX	
	Students D3/S1	1,000,XXX	1,250,XXX	
	Speaker	1,300,XXX	1,500,XXX	
	Note:			
Includes Gala Dinner for all & Site Visit (12 <sup>th</sup> Nov) for first 50 participants				

#### Additional Gala dinner for Spouse/Partner will be charged Rp. 350000

Early Bird Standard Rate
Before September 30, 2024 After September 30, 2024

	Indonesian (above 36 years old) Price in IDR			
	HATTI member	1,500,XXX	2,000,XXX	
AYGEC (11th Nov) + PIT (12th-13th Nov)	non-HATTI member	1,800,XXX	2,500,XXX	
	Speaker HATTI member	1,300,XXX	1,500,XXX	
	Speaker non-HATTI member	1,500,XXX	1,800,XXX	
	Optional Day 1 Participation	300,000	300,000	
	Optional Day 1 Gala Dinner	350,000	350,000	
	Optional Site Visit (14 <sup>th</sup> Nov)*	350,000	Closed	
	Note:			
	*Depends on Available Slot (Snack, Lunch, and Transport included)			

Additional Gala dinner for Spouse/Partner will be charged Rp. 350000



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#### **ABOUT HATTI & HATTI AMM:**



Himpunan Ahli Teknik Tanah Indonesia (HATTI) also known as ISGE (Indonesian Society for Geotechnical Engineering) has contributed significantly on the geotechnical-related development of Indonesia since its establishment in 1975. As one of the first geotechnical societies in Southeast Asia, ISGE has played a pivotal role in advancing geotechnical knowledge and fostering collaboration among professionals.

Inspired by the success of Young Members Presidential Group (YMPG) initiated by the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) in 2009, ISGE recognized the importance of nurturing the next generation of geotechnical engineers. In response, ISGE established young members and student division (YMSD), also known as HATTI AMM, in 2019. Ever since its creation, HATTI AMM has attracted over 250 members. HATTI AMM is committed to empower future leaders of geotechnical engineering, equipping them with the skills, resources, and connections needed to excel in their careers.

# **PAST EVENTS ORGANIZED BY HATTI:**



27th Annual ISGE Conference



Young ISGE Members Gathering



**Keynotes Sessions** 



Indonesian Geotechnical Congress



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# **OUR GOLD A SPONSORS:**





### **OUR GOLD B SPONSORS:**



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