

# Deep Mixing 2024

2-5 December 2024 | Yokohama, JAPAN https://dm2024.info/



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## Greetings

On behalf of the organising committee of the Deep Mixing 2024 Yokohama Conference, we are delighted to invite you to the conference scheduled to be held in Yokohama, Japan, in December 2024. The theme of the conference is 'Information and Communication Technology and Sustainability in Deep Mixing'. Deep soil mixing was initiated about 50 years ago, and thereafter, important advancements have been made. The various variants of Deep Mixing Method currently in use have evolved through continuous research and development of the specific mixing processes, allowing us to design and execute reliable ground improvement projects in a variety of soil conditions worldwide. Meanwhile, the information and communication technology wave has also reached the Deep Mixing world, affecting everything from soil investigation and design to execution. Additionally, sustainability presents critical challenges. We have started to reduce CO<sub>2</sub> emissions using less Portland cement, applying alternative and blended binders including industrial by-products, and by enhanced instrumentation and optimization of all processes important for soil mixing efficiency, contributing to the Sustainable Development Goals (SDGs). The conference programme aims to emphasise on these issues and is designed to stimulate collaboration, innovation, and discovery with researchers and practitioners worldwide. However, the traditional themes of QC/QA, technology development, and applied research remain very important and will be also addressed.

Japan is a unique country in every imaginable way, including its culture, food, climate, geography, and history. Along with these pleasant backgrounds, we await to welcome you with the hospitality of our people. Yokohama is one of the biggest port cities and the second most populous city in Japan after Tokyo. It is one of the core metropolitan cities, with a metropolitan population of 43.5 million. Yokohama was, after all, the site of the first gigantic deep mixing project with a marine construction machine in the mid-1970s. It was carried out at the Daikoku Pier in the Port of Yokohama and is still in use as quay walls. Additionally, as a host city, Yokohama has much to offer the tourists, with a diverse range of attractions. We look forward to welcoming you, one and all, to our beautiful and exciting city in December 2024.

Sincerely yours,

Hidenori Takahashi, PhD, P.E.Jp Port and Airport Research Institute, National Institute of Maritime, Port and Aviation Technology Conference Co-Chair of Deep Mixing 2024

Michał Topolnicki, Prof., PhD, D.Sc. Keller Holding GmbH Conference Co-Chair of Deep Mixing 2024

# **Conference History**

The first international specialty conference on deep mixing was co-organised by the Japanese Geotechnical Society (JGS) and the International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) TC-17 in 1996 in Tokyo. The 1996 Tokyo conference was followed by a series of specialty conferences/symposia in 1999 Stockholm, 2002 Tokyo, 2005 Stockholm, and 2009 Okinawa. 2015 was the first event in the series to be held in North America outside Japan and Sweden. A subsequent conference was scheduled to be held in Poland in 2020, but was postponed due to Covid-19 and was eventually held as an online conference in 2021 as an alternative. The conference was successfully organised as an online conference. The conference will return to Japan in 2024. The Deep Mixing conference provides a platform for the worldwide exchange of the latest information on equipment, material properties, case studies, design procedures, quality control (QC) and quality assurance (QA), and environmental aspects of deep mixing.

## **Themes**

The main themes of the conference will be the following, mainly related to mechanical deep mixing and stabilised soils. Combined mechanical mixing and jet-assisted mixing can be included in the scope.

#### **Emerging themes**

ICT and BIM in deep mixing

Sustainability (e.g. contribution to SDGs from deep mixing, CO2 emissions reduction in deep mixing)

#### **Basic themes**

Laboratory mixing and material testing

Properties of treated soil materials (e.g. binders, durability, material models)

Analyses and design procedures (e.g. methodology, modelling, recommendations, codes)

Contracting strategy / specifications / practice

Field testing including measurements and long-term data

Mixing equipment and construction technologies

Quality control and quality assurance

Case histories with lessons learned

Large-scale construction projects

Deep mixing for various applications (e.g. foundation, water shut-off, slope stability, environment, liquefaction mitigation)

## **Sponsors**













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## **International Advisory Committee**

Committee chair: Masaki Kitazume, Japan

Abir Al-Tabbaa, UK Dennis Boehm, USA

Leung Chun Fai, Singapore

Nicolas Denies, Belgium

Russell Denny, Australia

Theresa Engler, USA

Håkan Eriksson, Sweden

Franz-Werner Gerressen, Germany

Jie Han, USA

Rolf Katzenbach, Germany

Stefan Larsson, Sweden

Songyu Liu, China

Paolo Marzano, Italy

Fabrice Mathieu, France

Jérôme Racinais, France

Masaaki Terashi, Japan

\* Alphabetical order of family name

## **Organising Committee**

Kiyokazu Hiraki (Kobelco Construction Machinery)

Yuki Imai (Fudo Tetra)

Youhei Katayama (Penta-Ocean Construction)

Masaya Kawata (Shimizu Corporation)

Kazuo Konishi (Takenaka Civil Engineering & Construction)

Ooki Kurihara (Port and Airport Research Institute)

Hidetake Matsui (Japanese Geotechnical Society)

Moritada Mori (Takenaka Civil Engineering & Construction)

Yoshiyuki Morikawa (Port and Airport Research Institute)

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Sachihiko Tokunaga (Cement Deep Mixing Method Association)

Hisanori Tsuchiya (Shimizu Corporation)

Kazuhiko Ueno (Penta-Ocean Construction)

Masato Wada (Toyo Construction)

Kanade Yagi (Port and Airport Research Institute)

Takashi Yamada (Dry Jet Mixing Method)

Nobuyuki Yamane (Toa Corporation)

\*Alphabetical order of family name



## Venue

#### TKP Gardencity Premium Yokohama Landmark Tower (25th floor, Landmark Tower)

Yokohama Landmark Tower, 25th Floor, 2-2-1 Minato Mirai, Nishi-ku, Yokohama City, Kanagawa Prefecture, 220-8125, Japan

#### Conference room URL

https://www.kashikaigishitsu.net/facilitys/gc-yokohama-landmark/access/

#### Landmark Tower URL

https://www.yokohama-landmark.jp/facility/

\* The pages are in Japanese, so use the automatic translation function to convert it into your language.



#### Examples of hotels we can recommend:

#### [Luxury hotel]

- Yokohama Royal Park Hotel
- New Otani Inn Yokohama Premium
- The Yokohama Bay Hotel Tokyu
- Inter Continental Yokohama Grand
- The Westin Yokohama
- Mitsui Garden Hotel Yokohama Minatomirai Premier

#### [Reasonable hotel]

- JR-East Hotel Mets Yokohama Sakuragicho
- Yokohama Sakuragicho Washington Hotel

# **Dates & Program**

The overall schedule of the conference is as follows. Participants are expected to participate during the entire period.

	2 Dec (Mon)	3 Dec (Tue)	4 Dec (Wed)	5 Dec (Thu)
8:30	Desk open			
9:00	Registration			
9:30	Welcome ceremony	Discussion session 1	Discussion session 3	
10:00	Keynote Lecture 1 Masaki Kitazume			
		Coffee break	Coffee break	
10:45 11:00	Coffee break			
11:15	Keynote Lecture 2: Brian J Freilich	Discussion session 2	Discussion session 4	
12:00			Closing ceremony	
	Lunch	Lunch		
40.00				
13:00	Consideration 4	Workshop: Discussion in group		Technical tour
14:00	Special lectures 1	Coffee break		
14:30				
15:00	Coffee break	Workshop: Presentation from group		
15:30	Oonee break			
15.50			Site visit	
16:00	Special lectures 2		Site visit	
		Ice-breaking activity		
17:00		ice-breaking activity		
17.00				
	Walaama party			
18:00	Welcome party (Buffet-style party)			
19:00		Banquet (Unitl 21:00)		

<sup>\*</sup>Please note that details may change.

## **Important dates**

1 May 2023: Abstract call

31 October 2023: Abstract deadline November 2023: Notice of acceptance

14 April 2024: Full paper deadline 30 June 2024: Final paper deadline

31 August 2024: Payment deadline for registration fee

2-5 December 2024: Conference

## **Paper submission**

Conference papers can be submitted via the website below. A file showing the format for submission is also available on the website; please download this file, replace words and prepare your manuscript.

Website URL https://dm2024.info/paper-submission/

The same person is allowed to submit more than one paper, but one registration is required per paper.

As the papers will be published as peer-reviewed ones, they will be checked by at least two reviewers to ensure that they satisfy the following points. The paper (1) matches the theme(s) of the conference, (2) contains content not published in other papers or articles, (3) is not for commercial purpose, (4) contains technical information useful to readers, (5) is reliable in content, (6) is clearly described in terms of its background, methods, results, discussion, and conclusion, (7) contains no logical contradictions, and (8) is well presented (language expressions, etc.).

Authors must agree to the following.

- (1) The papers will be distributed as proceedings and published on the web site.
- (2) The responsibility and copyright for the content of the paper rests with the author(s).

# Registration

The condition for a paper to be published in the conference proceedings is that it has been successfully registered - one registration per paper. The same person can make several registrations, but for the management of the conference, please contact the conference secretariat if you have made several registrations. The registration website will open in May, and the payment deadline of the registration fee is 31 August 2024. The registration fees are as follows.

Category	Registration fee	
Presenter	100,000 JPY	
Participant (No presentation)	100,000 JPY	
Spouse / Accompanying person	30,000 JPY	
Accompanying children under 6 years old	Free of charge	

The presenter and participant fees include the right to attend all of the conference events, including banquet and tour. Other categories include charges for welcome party, ice-breaking activity, banquet, site visit, and technical tour. The cancellation policy is as follows.

Date	Cancellation charge	
Until 30 September 2024	50% of the registration fee	
From 1 October 2024	100% of the registration fee	



### Contact Us

For all enquiries, please contact the Secretariat. deepmixing2024@gmail.com

#### Conference Hosts

Port and Airport Research Institute (PARI) Cement Deep Mixing Association (CDM) Dry Jet Mixing Method Association (DJM) Japanese Geotechnical Society (JGS)

