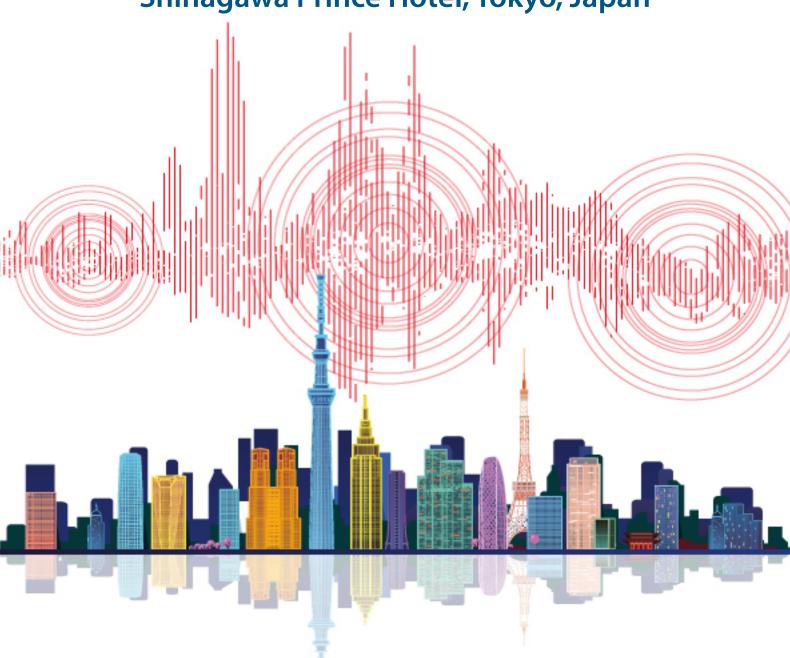


4<sup>th</sup> – 5<sup>th</sup> December 2024 Shinagawa Prince Hotel, Tokyo, Japan



4th - 5th December 2024 | Shinagawa Prince Hotel, Tokyo, Japan



"It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change." - Charles Darwin

### EVENT OVERVIEW

On January 1, 2024, Japan was hit by a magnitude 7.6 earthquake, causing USD 17.6 billion in infrastructure damage. This event highlights the critical need for seismic-resilient construction. Advanced engineering practices, such as base isolation and reinforced structural components, can significantly enhance building stability during earthquakes. This is exemplified by Taiwan's tallest skyscraper, Taipei 101 which recently withstood a powerful 7.4-magnitude earthquake with minimal damage, showcasing the effectiveness of its innovative design. Acumen Research and Consulting has stated that the global seismic reinforcement materials market revenue is projected to increase by USD 46.1 billion by 2032, encouraging companies to continue investing in research and development to introduce advanced materials and techniques. Such advancements not only enhance seismic resilience in construction projects worldwide but also play a crucial role in safeguarding lives and assets against future seismic events.

Despite residing in a seismically active region, Japan's strict adherence to building codes has led to the creation of some of the world's most robust seismic-resistant structures. Contrastingly, at least 75,000 buildings in the affected earthquake zone in Turkey were found to have received construction amnesties, culminating in the Urbanization Ministry estimating that at least 84,700 buildings collapsed or suffered severe damage after the quake in February 2023. The magnitude of such destruction underscores the significance of employing efficient and ethical construction techniques in seismic-prone areas.

Seismic-proof construction isn't just a mandatory requirement; it ensures the safety of occupants, mitigates financial risks, and bolsters the overall resilience of communities in seismic-prone areas. Join us at the **World Seismic Resilient Structures Summit** hosted by **Trueventus** to gain insights on top-notch case studies and projects presented by world renowned industry experts. Seize the opportunity to connect and network within the seismic engineering circle on a global platform, ensuring your position at the forefront of this ever-evolving landscape. Join us in shaping the future of seismic-resilient structures.

### WHY YOU CANNOT MISS THIS EVENT

- Gain profound insights of building codes and regulatory frameworks, crafted to enforce adherence to the highest seismic engineering standards.
- Navigate the intricate landscape of safety considerations during seismic activity, while contemplating the enduring durability of structures over the long term.
- Grasp the nuanced understanding of the financial landscape, empowering builders to make discerning decisions that safeguard their investments and fortify the economic foundation of their projects.
- Embark on an exploration of cutting-edge technologies and methodologies in seismic engineering, seamlessly integrating them into construction practices to elevate the seismic resistance of structures to unprecedented levels.

### WHO SHOULD ATTEND?

### This event is targeted but not limited

- CEOs, CFOs, & COOs
- Chief Construction Officers
- Project Directors
- VPs/ Directors/ Heads/ General

### Managers/ Managers of:

- o Construction
- o City Planning
- o Architecture
- o Property Management
- o Civil Engineering
- o Project Engineering
- o Property Development
- o Infrastructure
- o Seismic/ Structural
- o Geospatial
- o Infrastructure
- o Drafting Design
- o Procurement

### From the following industries:

- Government Entities
- Construction Companies
- Real Estate Developers/ Investors
- Contractors
- Building Service Providers
- Technology Solution Providers
- Design & Architecture Firms
- Construction Project Management Firms

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### FEATURING PRESENTATIONS AND CASE STUDIES BY DISTINGUISHED SPEAKERS



**Dr. Eng. Lutfian R Daryono**Chief Engineer **NITTOC Construction, Japan** 



**Dharma Mitra**Vice President Director **PT. Modernland Realty, Indonesia** 



Patrick Otelllini National Affordable Housing Director Swinerton, United States



Benie Ferra Agusta Chief Engineer Geotechnical Monitoring Freeport Indonesia, Indonesia



Forrest Lanning, P.E., CPEng
Earthquake Response Liaison – Structural
Engineer
Federal Emergency Management Agency
(FEMA), United States



**Gerry Murphy**Associate Director - Japan Country Manager **Wood Thilsted, Japan** 



Juliane Spaak
Technical Director of Structural
Engineering
Beca Ltd, New Zealand



Nelson Christopher Servida Managing Partner S+S Engineering and Associates, Philippines



**Leonardi Kawidjaja** Associate Principal **Arup, Indonesia** 



Rodolfo Chao Chua Business Group Leader for Structures -Design & Engineering GHD, Philippines



Prof. Ir. Iswandi Imran
President of Indonesian Society of Civil
and Structural Engineers
Institut Teknologi Bandung, Indonesia



Abdel F. T. Toukan
VP, Director, Global Contracts,
Commercial, and Projects Delivery
BKCN Engineering Inc, Canada



**Archeilia Dwianca** Technical Product Owner **Synspective Inc, Japan** 



Ryoji Otsu Ph.D Chief Executive Officer Chinougijyutsu Co.,Ltd, Japan



Yoshiharu SAITO
Chief Engineer
Certified NPO Environment and Disaster
Prevention R&D, Japan



**Dr. Arun M Puthanpyrayil**Technical Director of Structural Dynamics **Beca Ltd, New Zealand** 

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### Day One: Wednesday, 4th December 2024

0800 Chairperson Welcome Address

0850 Opening Keynote Address

0900 Session One

### A cost-benefit analysis framework for City-scale Seismic upgrade of buildings

- A community-led approach to seismic policy and city-scale resilience.
- San Francisco's "Soft Story" residential retrofit program.
- San Francisco's Private School Earthquake Safety Program.

Patrick Otelllini, National Affordable Housing Director Swinerton, United States

### 0945 Session Two: Joint Presentation

### MOODD: a new design approach for application of damping devices

- Developments in Structural control engineering was mainly necessitated due to the growing demand for minimizing damages during a seismic event.
- Coupling Performance Based Seismic Design (PBSD) with Structural control engineering provides an unique opportunity to create a more seismic resilient community.
- To demonstrate the efficiency of MOODD, application of this framework is illustrated through some of the recent multi-storey (>10 storeys) retrofits and new builds done in one of highly seismic regions of the world, Wellington, New Zealand

**Dr. Arun M Puthanpyrayil,** Technical Director of Structural Dynamics **Juliane Spaak**, Technical Director of Structural Engineering **Beca Ltd, New Zealand** 

### 1030 The Speed Networking - The Mad Minutes!

Fun and fast, this networking activity is a great opportunity to grow your connections

#### 1105 Morning refreshments

### 1130 Session Three

#### Considering Advanced Seismic Design Strategies for Irregular Structures

- Types of irregularities in structures and their effects in increasing seismic demand to the structures
- A simple and advanced approaches to deal with the effects of irregularities in seismic design
- The use of seismic devices to reduce the effects of irregularities in structures

**Prof. Ir. Iswandi Imran., Ph.D.,** President of Indonesian Society of Civil and Structural Engineers

Institut Teknologi Bandung, Indonesia

### 1215 Session Four

### Design and Detailing Requirements for A Resilient Steel Moment Frame Connections

- Seismic design concepts for Special Moment Frames (SMF)
- Seismic-resistant SMF connections
- Seismic-resilient SMF connections

**Rodolfo A. Chua, Jr,** Business Group Leader for Structures - Design & Engineering

**GHD PTY LTD, Philippines** 

### 1300 Networking Luncheon

### 1400 Session Five

### Techniques for designing seismic monitoring system to withstand seismic loading at deep mining infrastructure

- · Seismic and underground monitoring system overview
- Implementation seismic re-entry protocol for mitigation seismic hazard impact to employee and mine infrastructure
- Underground mine ground support foundation to withstand seismic static and dynamic loading

**Benie Ferra Agusta,** Chief Engineer Geotechnical Monitoring **Freeport Indonesia, Indonesia** 

#### 1445 Session Six

### Seismic design approaches for offshore wind foundations – a comparison of Japanese and International practice

- Delivering safe but economic designs will play a major role in the successful adoption of offshore wind to help achieve Japan's renewable energy targets.
- The unique seismic and environmental conditions in Japan present a distinct challenge for the design of the foundation systems.
- An outline of the design approaches required in the current Japanese design guidance and current international practice for designing offshore wind turbines in seismically active zones

**Gerry Murphy,** Associate Director - Japan Country Manager **Wood Thilsted, Japan** 

#### 1530 Afternoon Refreshments

#### 1600 Session Seven

Possibility of Huge earthquake prediction by observing tree bio-electric potential, changes in the ionosphere using AM radio waves, and monitoring multiple frequency bands simultaneously

- Finally Huge earthquake prediction has become possible
- At least three observation methods are required
- Now is the time to start earthquake prediction activities

Yoshiharu SAITO, Chief Engineer

Certified NPO Environment and Disaster Prevention R&D, Japan

### 1645 Session Eight

### Use of Robots in Japan from from Rescue to Recovery Operations in the Event of Earthquake

- Robots
- Remote control
- Disaster response

Ryoji Otsu Ph.D, Chief Executive Officer Chinougijyutsu Co.,Ltd, Japan

### 1730 End of Day One

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### Day Two: Thursday, 5th December 2024

0800 Registration & Coffee

0850 Chairperson Welcome Address

#### 0900 Session One

### Post-Earthquake Structural Assessment: Advancing Inspection and Assessment Practices for Earthquake-Surviving Buildings

- · Why buildings need to be assessed shortly after an earthquake
- Get people back into their homes and businesses, if it's safe to do so. And get people out of the dangerous buildings.
- Consistency is key to earning the public's trust for post-earthquake building assessments

**Forrest Lanning, P.E., CPEng,** Earthquake Response Liaison – Structural Engineer

Federal Emergency Management Agency (FEMA), United States

#### 0945 Session Two

### Addressing Unique Challenges in Designing Tall Buildings to Resist Seismic Forces

- Performance-based seismic design
- Common seismic framing system
- Post-earthquake performances

Leonardi Kawidjaja, Associate Principal

Arup, Indonesia

### 1030 Morning Refreshments

#### 1100 Session Three

### Implementing shear walls to enhance lateral stiffness and resistance to seismic forces

- Drift Control (Rotation and translation)
- Comparison of different codes with application to Dual System.
- Combination of Moment Frames and walls (Lateral Forces Distribution)

Nelson Christopher Servida, Managing Partner

S+S Engineering and Associates, Philippines

#### 1145 Session Four

### Navigating Liability and Damage Claims in Induced Earthquakes: The Critical Role of Seismic Resilient Structures

- Understanding Induced Earthquakes
- Analysing Legal Framework and Liability
- Damage Claims and Compensation

**Abdel F. T. Toukan,** VP, Director, Global Contracts, Commercial, and Projects Delivery

**BKCN Engineering Inc, Canada** 

### 1230 Networking Luncheon

#### 1400 Session Five

### Implementing modular construction techniques to enhance structural stability, and seismic resilience, particularly in regions prone to seismic activity along earthquake fault lines

- The importance of planning in building houses that can be done fast and strong enough to withstand earthquakes in areas vulnerable to seismic activities.
- Modular construction techniques to increase structural stability and earthquake resistance.
- Innovation in the implementation of modular construction techniques in earthquake prone areas, from simple residential houses to complex buildings.

**Dharma Mitra Sigamani,** Vice President Director **PT. Modernland Realty, Tbk, Indonesia** 

#### 1445 Session Six

### Integrating Geotechnical Principles into the Design and Construction of Seismic Resilient Structures

- Creating plans with local authorities for earthquakes, including safety measures and building code importance.
- Evaluating slopes' seismic risks, model failure mechanisms, set design standards for resilient reinforcement systems, preventing seismic disasters.
- Utilize tunnels, basements, and galleries for slope stability, distribute seismic loads, improve integrity, and monitor movement for long-term effectiveness.

**Dr. Eng. Lutfian R Daryono,** Chief Engineer **NITTOC Construction, Japan** 

### 1530 Afternoon Refreshments

#### 1600 Session Seven

### Utilizing SaaS Technologies for Post-Earthquake Damage Assessment by leveraging SAR Satellite Imagery

- Utilize SAR (Synthetic Aperture Radar) satellite imagery for real-time monitoring of earthquake-affected areas
- Employ SaaS (Software as a Service) platforms to analyze SAR data and assess the extent of damage caused by the earthquake
- Implement algorithms within SaaS solutions to automatically detect damaged structures and infrastructure from SAR imagery

**Archeilia Dwianca,** Technical Product Owner **Synspective Inc, Japan** 

### 1645 Session Eight

### Performance Evaluation and Optimization of Seismic-Resistant Cladding Systems

- Evaluate various cladding materials such as concrete, steel, glass, or composite panels for their seismic resistance properties.
- Conduct structural analysis to assess the performance of cladding systems under seismic loading conditions.
- Optimize the design of connections between the cladding system and the building structure to enhance seismic resistance

### (Speaker to be advised)

1730 End of Conference

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### **COMPANY DETAILS**

Name	Industry
Address	
Postcode	Country
Tel	Fax

### ATTENDEE DETAILS

1	Name	Job Title
	Tel	Email
2	Name	Job Title
	Tel	Email
3	Name	Job Title
	Tel	Email
4	Name	Job Title
	Tel	Email
5	Name	Job Title
	Tel	Email

### **APPROVAL**

NB: Signatory must be authorised on behalf of contracting organisati	Signatory must be authorised on behalf of contracting organisation.		
Name	Job Title		
Email			
Tel	Fax		
Authorising Signature			

### REGISTRATION FEES

REGISTRATION FEES		
	Corporate	
End of September 2024	USD 1995 (Per Delegate)	
End of October 2024	USD 2195 (Per Delegate)	
1st November onwards 2024	USD 2495 (Per Delegate)	
All options inclusive of delegate pack, luncheon and refresh	ments. JP – IF415	

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### **TERMS & CONDITIONS**

- The course fee is inclusive of the event proceedings, materials, refreshment and lunch.



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