# **SEWC 2025**

# **Structural Engineers World Congress**

April 16-18, 2025, Shanghai, China

# Organized by



Tongji University



Tongji Architectural Design (Group) Co., Ltd.



SEWC China Group



State Key Laboratory of Disaster Reduction in Civil Engineering

# Co-organized by



Journal of Building Structure

# **Sponsored by**



Shanghai Tongzheng Aluminium Structure Construction & Technology Co., Ltd.



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### Introduction

The Structural Engineers World Congress (SEWC) is dedicated to the Art, Science and Practice of Structural Engineering. The SEWC aims to cover major aspects pertaining to contemporary technical and professional issues affecting the structural engineering profession worldwide and to highlight the profession's impact and its interface with the societies. It gives an excellent platform for structural engineering professionals to interact with each other and to learn more about what is happening in the world of structural engineering now and the trends in the future.

The first SEWC was held in San Francisco in 1998, which was the first international congress covering all aspects of structural engineering, both technical and professional practice issues. The 2<sup>nd</sup> to 8<sup>th</sup> SEWC were held in Japan (2002), India (2007), Italy (2011), Singapore (2015), Mexico (2017), Turkey (2019), and Korea (2023). Based on this, **the 9<sup>th</sup> Structural Engineers World Congress (SEWC 2025) will be held in Shanghai from April 16 to 18, 2025**. It aims to further strengthen international cooperation and promote the exchange of the latest technological advancements and ideas on a global scale. In addition, the 9<sup>th</sup> SEWC offers an ideal opportunity to visit Shanghai, a modern-day city perched at the mouth of the Yangtze River with its collection of skyscrapers, bridges, museums and art galleries, and of course good food and entertainment.

The congress is intended to gather researchers and practitioners world-wide with the background in engineering disciplines related to structure who will share the latest results of research and successful case studies. The theme of the congress is **structural engineering for a resilient city**.

Conference Website: <a href="http://www.sewc2025.com">http://www.sewc2025.com</a>

# **Scopes and Topics**

(include, but are not limited to)

- · Building and bridge design and construction
- · Special structures
- · New materials
- · New Theories
- · ITC and AI technology
- · Retrofitting of existing structures
- · Structural health monitoring
- · Codes, regulations, guidelines for the design of structures
- · Disaster prevention and mitigation
- · Global warming/climate change prevention



Scan the code to view real-time conference photos

# **Scientific Committee**

Chair: Xilin Lu (China)
Co-chair: Akira Wada (Japan)

Members:

Gorun Arun (Türkiye) James R. Cagley (USA)

Sung-Pil Chang(Korea) Jiemin Ding (China)

Maria E. Moreyra Garlock (USA) Ing Mauro Eugenio Giuliani(Italy)

Yasuhiro Hayabe (Japan) Gorman Ho (China)

Lim Peng Hong (Singapore) Ken'ichi Kawaguchi (Japan)

Seung Deog Kim (China) Young-min Kim (Korea)

Abhishek Murthy (Singapore) Qingying Ren (China)

Satwant S Rihal (USA) Juan Gerardo Oliva Salinas(Mexico)

Ing. Enzo Siviero (Italy) Knut Stockhusen(Germany)

R. Sundaram (India) Romuald Tarczewski (Poland)

# **Organizing Committee**

Chair: Jiemin Ding

Co-Chair: Qilin Zhang Huanjun Jiang

Members:

Ying Zhou Honglei Wu Bin Wang Jiaojiao Shi

Shiyu Wang Qiao Zhao Xuhong Qiang Ye Liu

Xin Li Haonan Liu Geng Qin

# **Conference Venue**

Lecture Hall, 1F, Office Building, Tongji Architectural Design (Group) Co., Ltd. (TJAD) No.1230 Siping Road, Yangpu District, Shanghai, China

Tel: +86-21-65987788

同济大学建筑设计研究院(集团)有限公司办公楼 1 层报告厅(上海市杨浦区四平路 1230 号)

# **Chair and Keynote Speakers**

#### Scientific Committee Chair and Co-chair



Chair: **Xilin Lu**Tongji University, China



Co-chair: **Akira Wada**Institute of Science Tokyo, Japan

#### Organizing Committee Chair and Co-chair



Chair: **Jiemin Ding** Tongji Architectural Design (Group) Co., Ltd., China



Co-chair: **Qilin Zhang** Tongji University, China



Co-chair: **Huanjun Jiang**Tongji University, China

#### **Keynote Speakers(Sorted by presentation sequence)**



Qingying Ren
China Construction Technology
Consulting Co., Ltd.,
China Architecture Design &
Research Group Co., Ltd., China



**Neil Thomas** Atelier One, UK



Mark Sarkisian SOM, USA



**Ken'ichi Kawaguchi** The University of Tokyo, Japan



Goman Ho Arup, China



**Yukio Tamura** Chongqing University, China



Young-min Kim
The Korean Structural
Engineers Association, Korea



**Qilin Zhang** Tongji University, China



Jacek Szafran Łódź University of Technology, Poland



Yonca Çeltikçi ARCE Structural Engineering Co., Ltd., Turkey



**Airong Chen** Tongji University, China



Wei Chen Shanghai Office, Schlaich Bergermann Partner, Germany



**Esteban Astudillo de la Vega** MAISE Taller Estructural SA de CV, Mexico



Koichi Nakatsuka Japan Structural Consultant Association, Japan



**Honggun Park** Seoul National University, Korea



**Honglei Wu**Tongji Architectural Design
(Group) Co., Ltd., China



**Enzo Siviero** eCampus University, Italy



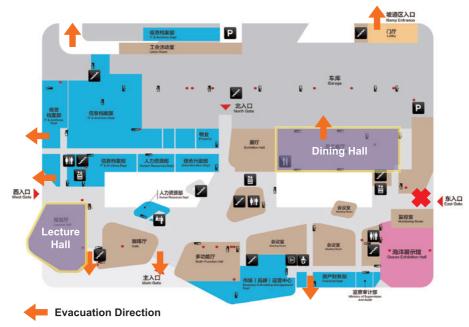
**Yuanwen Ouyang** Shanghai Jianke Aluminium Research Institute, China

# Program at a Glance

Date	Time	Items	Venue
April 16 (Wednesday)	13:00-21:00	Registration	1F, Office Building, TJAD 同济大学建筑设计研究院(集团)有限公司
	08:00-09:00	Registration	办公楼 1 层
	09:00-09:30	Opening Ceremony	Lecture Hall, 1F, Office Building, TJAD
	09:30-10:30	Plenary Session 1	
	10:30-10:45	Coffee Break	1F, Office Building, TJAD
	10:45-12:15	Plenary Session 2	Lecture Hall, 1F, Office Building, TJAD
April 17 (Thursday)	12:15-13:30	Lunch	Dining Hall, 1F, Office Building, TJAD 同济大学建筑设计研究院(集团)有限公司 办公楼 1 层餐厅
	13:30-15:30	Plenary Session 3	Lecture Hall, 1F, Office Building, TJAD
	15:30-15:45	Coffee Break	1F, Office Building, TJAD
	15:45-17:45	Plenary Session 4	Lecture Hall, 1F, Office Building, TJAD
	18:30-20:30	Banquet	Ball Hall, 3F, Kingswell Hotel Tongji 同济君禧大酒店 3 层宴会厅
	09:00-10:30	Plenary Session 5	Lecture Hall, 1F, Office Building, TJAD
	10:30-10:45	Coffee Break	1F, Office Building, TJAD
	10:45-11:45	Plenary Session 6	Lecture Hall, 1F, Office Building, TJAD
April 18 (Friday)	11:45-12:00	Closing Ceremony	
	12:00-13:00	Lunch	Dining Hall, 1F, Office Building, TJAD
	13:00-17:00	Technical Tour	Spot 1: Shanghai Expo Cultural Park Greenhouse Garden (上海世博文化公园温室花园) Spot 2: Shanghai Museum East (上海博物馆东馆)

<sup>\*</sup>Notes: Please have breakfast at your accommodation hotel. The breakfast time and location are as follows:

- 1. Kingswell Hotel Tongji, 6:30-10:00, 1F, Sunshine Restaurant;
- 2. Radission Red Shanghai Wujiaochang Hotel, 7:00-10:00, 1F, OUI BAR+KTCHN.



Conference Venue Safety Evacuation(1F) 会场消防疏散平面图(一层)

# **Detailed Program**

	April 17, Morning,Thursday		
Opening Ceremony  Lecture Hall, 1F, Office Building, TJAD  Chair: Jiemin Ding (Tongji Architectural Design (Group) Co., Ltd., China)			
09:00-09:10	Welcome address by vice president of Tongji University		
09:10-09:20	Welcome address by president of SEWC  Akira Wada (Institute of Science Tokyo, Japan)		
09:20-09:30	Award Presentation Presenter: Xilin Lu (Tongji University, China) Akira Wada (Institute of Science Tokyo, Japan) Group Photo		
Plenary Session 1  Lecture Hall, 1F, Office Building, TJAD  Chair: Qilin Zhang (Tongji University, China)			
09:30-10:00	Structural expression in architectural aesthetics  Qingying Ren (China Construction Technology Consulting Co., Ltd., China Architecture Design & Research Group Co., Ltd., China)		
10:00-10:30	Two worlds Neil Thomas (Atelier One, UK)		
10:30-10:45	Coffee Break 1F, Office Building, TJAD		
	Plenary Session 2  Lecture Hall, 1F, Office Building, TJAD  Chair: Yukio Tamura(Chongqing University, China)		
10:45-11:15	Structural inventions in China  Mark Sarkisian (SOM, USA)		
11:15-11:45	Natural disaster and large public space  Ken'ichi Kawaguchi (The University of Tokyo, Japan)		
11:45-12:15	Building resilience: strategies beyond increasing safety factors  Goman Ho (Arup, China)		
12:15-13:30	<b>Lunch</b> Dining Hall, 1F, Office Building, TJAD		

# **Detailed Program**

	April 17, Afternoon, Thursday			
Plenary Session 3  Lecture Hall, 1F, Office Building, TJAD  Chair: Seung Deog Kim (Southeast University, China)				
13:30-14:00	Damping ratios and natural frequencies of buildings for wind resistant design <b>Yukio Tamura</b> (Chongqing University, China)			
14:00-14:30	K-structural engineering  Young-min Kim (The Korean Structural Engineers Association, Korea)			
14:30-15:00	Recent research and applications of aluminum structures in China <b>Qilin Zhang</b> (Tongji University, China)			
15:00-15:30	Telecommunication structures in Poland-history, research, design and execution  Jacek Szafran (Łódź University of Technology, Poland)			
15:30-15:45	Coffee Break 1F, Office Building, TJAD			
	Plenary Session 4  Lecture Hall, 1F, Office Building, TJAD  Chair: Alireza Behnejad(University of Surrey, UK)			
15:45-16:15	Construction of peace pyramid in Astana  Yonca Çeltikçi (ARCE Structural Engineering Co., Ltd., Turkey)			
16:15-16:45	The state of the art in smart structural inspection, monitoring and evaluation technique for long-span bridges  Airong Chen (Tongji University, China)			
16:45-17:15	Building with infra-lightweight concrete  Wei Chen (Shanghai Office, Schlaich Bergermann Partner, Germany)			
17:15-17:45	From ancient materials to the tallest concrete buildings in Mexico: an approach to sustainability, resilience, and durability  Esteban Astudillo de la Vega (MAISE Taller Estructural SA de CV, Mexico)			
18:30-20:30	<b>Banquet</b> Ball Hall, 3F, Kingswell Hotel Tongji			

# **Detailed Program**

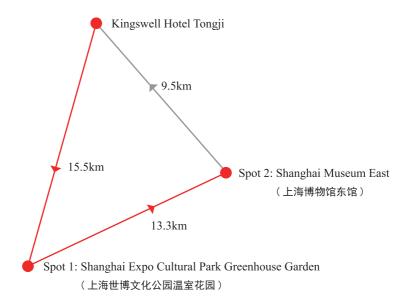
April 18, Morning, Friday				
Plenary Session 5  Lecture Hall, 1F, Office Building, TJAD  Chair: Enzo Siviero (eCampus University, Italy)				
09:00-09:30	Vibration control devices system for high-rise buildings in case of Japan Koichi Nakatsuka (Japan Structural Consultant Association, Japan)			
09:30-10:00	Performance-based earthquake design of building structure in Korea  Honggun Park (Seoul National University, Korea)			
10:00-10:30	Analysis of design parameters and monitored data of super high-rise structures  Honglei Wu (Tongji Architectural Design (Group) Co., Ltd., China)			
10:30-10:45	Coffee Break 1F, Office Building, TJAD			
Plenary Session 6  Lecture Hall, 1F, Office Building, TJAD  Chair: <b>Ken'ichi Kawaguchi</b> (The University of Tokyo, Japan)				
10:45-11:15	The harmony of bridges  Enzo Siviero (eCampus University, Italy)			
11:15-11:45	Innovative practice in new large-span spatial structures and integrated complex skin technology  Yuanwen Ouyang (Shanghai Jianke Aluminium Research Institute, China)			
11:45-12:00	Closing Ceremony			
	Summary of SEWC2025  Huanjun Jiang (Tongji University, China)			
	Introduction of SEWC2027  Jacek Szafran (Łódź University of Technology, Poland)			
12:00-13:00	Lunch Dining Hall, 1F, Office Building, TJAD			

# **Technical Tour**

April 18, Afternoon, Friday				
Boarding Location:The Entrance of Kingswell Hotel Tongji Gathering Time: 12:50 Departure Time: 13:00				
13:00-17:00	Spot 1: Shanghai Expo Cultural Park Greenhouse Garden (上海世博文化公园温室花园) Spot 2: Shanghai Museum East (上海博物馆东馆)			

#### Notes:

- 1. The conference organizing committee will make unified group reservations or purchase tickets, and arrange tour bus to the visit site. Please bring your ID card or passport.
- 2. The departure time is 13:00. Please arrive at the boarding location 10 minutes in advance.
- 3.After the technical visit, the conference tour bus will depart promptly at 17:00 from spot 2 (Shanghai Museum East) and return to Kingswell Hotel Tongji. If you need to take the tour bus, please be at the boarding location 10 minutes in advance.
- 4. If you do not take the tour bus back to the hotel, you can arrange your own itinerary instead. Thank you!



**Technical Tour Traffic Diagram** 

# **Visit Project Introduction**

#### 1. Shanghai Expo Cultural Park Greenhouse Garden

Shanghai Expo Cultural Park Greenhouse Garden is currently the largest glass greenhouse garden in Asia. It is located in the center of the southern area of Shanghai World Expo Cultural Park, with a total floor area of about 37,500 m². It consists of a visitor service center and three theme venues, displaying vegetation and natural scenery under various climatic conditions. It was joint designed by Arcplus Institute of Shanghai Architectural Design & Research(Co.,Ltd.) and Delugan Meissl Associated Architects . This greenhouse garden was rebuilt from the old factory building of Shanghai No.3 Steel Plant. The designers ingeniously retain the steel structure trusses of the original workshop of Shanghai No. 3 Steel Plant, and creatively adopt an aluminum alloy suspension and string structure system, creating a large indoor space without beams and columns.







#### 2.Shanghai Museum East

Shanghai Museum East is a world top tier museum of ancient Chinese art. It is a major cultural facility project of Shanghai, located at 1952 Century Avenue, Pudong New District, Shanghai. The total floor area is 113,200 m², with six floors above ground and two floors underground. There are 20 exhibition halls and multiple interactive experience spaces, and 10.5% of the all collections are precious collections. Shanghai Museum East is an original architectural design by Tongji Architectural Design (Group) Co., Ltd. The main structure system is a steel frame-bracing structure, and it adopts an earthquake energy dissipation technique of combined displacement-related and velocity-related dampers, achieving the designed service life of 100 years and ensuring the safety of the precious art collections.





### **Contact**

#### For oversea attendees:

Xuhong Qiang, Email: Qiangxuhong@tongji.edu.cn, Tel: +86-15000264936

Qiao Zhao, Email: sewc2025@163.com, Tel: +86-18516861038

#### For domestic attendees:

Qiong Wu (Registration/Invoice), Tel: +86-13810273081 Geng Qin(Accommodation), Tel: +86-13051538620 Zhiyan Cheng (Technical Tour), Tel: +86-15888663647

Website: http://www.sewc2025.com

# **Accommodation Hotels**

#### Kingswell Hotel Tongji

同济君禧大酒店(上海市杨浦区彰武路 50 号)

http://www.kingswelltongji.com/home.html

No. 50 Zhangwu Road, Yangpu District, Shanghai, China

Tel: 86-21-33626888\*5601

Email: junxi@kingswelltongji.com





#### Radisson Red Shanghai Wujiaochang Hotel

上海五角场丽芮酒店(上海市杨浦区四平路 1251 号)

https://www.radissonredhotels.com.cn/Html/hotelInfo.html?ChainID=9

No.1251 Siping Road, Yangpu District, Shanghai, China

Tel: +86-21-65986888

Email: sales.shwj@radissonredhotels.com.cn





# **Local Map**

#### **Conference Venue**

Lecture Hall, 1F, Office Building, Tongji Architectural Design (Group) Co., Ltd.(TJAD)

Address: No.1230 Siping Road, Yangpu District, Shanghai, China



#### Walking

- 1 Tongji University (No.1239 Siping Road, Yangpu District, Shanghai), 950m to the conference venue, 15 minutes
- 2 Tongji University Station, 345m away from the venue, 6 minutes
- 3 Radission Red Shanghai Wujiaochang Hotel (No.1251 Siping Road, Yangpu District, Shanghai), 847m to the conference venue, 14 minutes
- 4 Kingswell Hotel Tongji (No. 50 Zhangwu Road, Yangpu District, Shanghai), 276m to the conference venue, 5 minutes

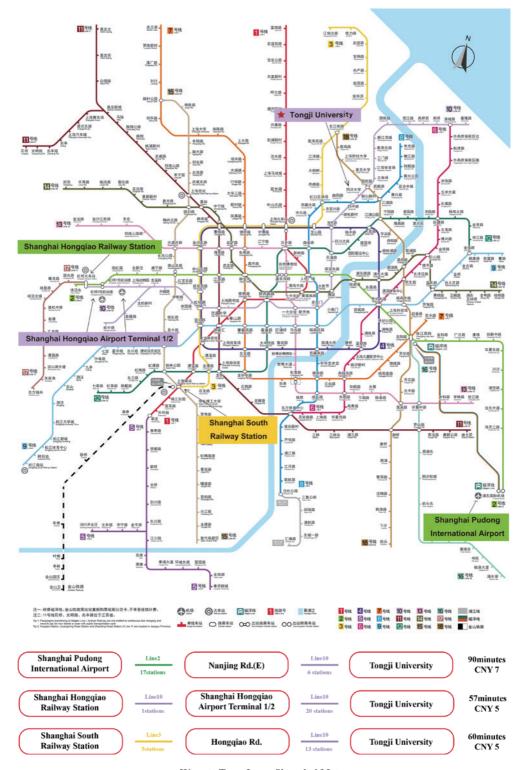
# **Transportation**



#### Taxi

- 1 Shanghai Hongqiao Railway Station: 27.8km to the conference venue, 30 minutes, CNY 95
- 2 Shanghai Hongqiao Airport Terminal 1/2: 22.7km to the conference venue, 33minutes, CNY 77
- 3 Shanghai Pudong International Airport: 41.9km to the conference venue, 47minutes, CNY 146
- 4 Shanghai South Railway Station: 21.6km to the conference venue, 30minutes, CNY 72

#### Shanghai Metro



Ways to Transfer on Shanghai Metro

