BEI-2025

Bridge Engineering Institute Conference

July 21-24, 2025

Paris, France

Final Program

BEI

An International Technical Society

Kyokuto Kowa Corporation is a construction company that has grown while continuously contributing to the development of transportation infrastructure, including roads and railways.

Bridge Construction

We are working to extend the lifespan of concrete structures through the know-how we have accumulated and our continuously evolving technical expertise.

Balanced Cantilever Construction

In Japan, where there are many mountainous areas, the cantilever construction method is widely used, and our company also has extensive experience with this method.

Maintenance

As the deterioration of concrete structures has become more evident nationwide, we have promoted the development of advanced repair techniques.

Lithium Nitrite Pressurized Injection

This method enables the repair of bridge decks damaged by salt attack or alkali-silica reaction from the underside without the need for traffic restrictions.

KYOKUTO KOWA CORPORATION
https://www.kkn.co.jp/ja/index.html

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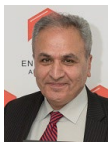

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Conference Organization

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Takashi Yamane (Japan)
Wael Zatar (USA)
Zhiwen Zhu (China)

Overview of Conference Program

Monday, July 21		
Time	Event	Location
5:00 to 6:30 pm	Registration	Canauxrama Paris
5:00 to 6:30 pm	Welcome Reception	Canauxrama Paris

Tuesday, July 22		
Time	Event	Location
8:45 to 9:00 am	Opening Ceremony	Room 107
9:00 to 9:40 am	Plenary Speech I (Karim Benzarti)	Room 107
9:40 to 10:20 am	Plenary Speech II (Myra Lydon)	Room 107
10:20 to 10:30 am	Award Ceremony	Room 107
10:40 to 11:20 am	Parallel Session A-1 (Monitoring)	Room 107
	Parallel Session A-2 (Seismic, Fatigue, and Durability I)	Room 109
11:20 to 11:30 am	Group picture	Sorbonne University
12:00 to 1:30 pm	BEI Lunch	Bouillon Racine
2:00 to 3:00 pm	Parallel Session A-3 (Materials and Performance I)	Room 107
	Parallel Session A-4 (Rail Bridges)	Room 109
3:00 to 3:30 pm	Coffee Break	Atelier Jussieu
3:30 to 4:50 pm	Parallel Session A-5 (Modeling and Advanced Analysis I)	Room 107
	Parallel Session A-6 (Ultra-High Performance Concrete I)	Room 109
7:00 to 9:00 pm	BEI Meeting	Invitation Only

Wednesday, July 23		
Time	Event	Location
8:30 to 10:00 am	Plenary Speech III (Xuhui He)	Room 107
	Plenary Speech IV (Su Taylor)	Room 107
10:00 to 10:30 am	Coffee Break	Atelier Jussieu
10:30 to 11:50 am	Parallel Session B-1 (Ultra-High Performance Concrete II)	Room 107
	Parallel Session B-2 (Repair and FRP Composites)	Room 109
12:00 to 1:30 pm	Lunch	On your own
1:40 to 3:00 pm	Parallel Session B-3 (Seismic, Fatigue, and Durability II)	Room 107
	Parallel Session B-4 (Performance Evaluation I)	Room 109
3:00 to 3:30 pm	Coffee Break	Atelier Jussieu
3:30 to 4:50 pm	Parallel Session B-5 (Performance Evaluation II)	Room 107
	Parallel Session B-6 (Modeling and Advanced Analysis II)	Room 109
7:00 to 9:00 pm	BEI Dinner	Le Train Bleu

Thursday, July 24		
Time	Event	Location
8:40 to 10:00 am	Parallel Session C-1 (Materials and Performance II)	Room 107
	Parallel Session C-2 (Modeling and Advanced Analysis III)	Room 109
10:00 to 11:40 am	Parallel Session C-3 (Experimental Techniques)	Room 107
	Parallel Session C-4 (Performance Evaluation III)	Room 109
11:45 to 12:00 pm	Closing Ceremony	Room 107

Conference Information

Registration

Registered attendees and invited personnel may pick up their name badges and other necessary materials from the information desk in the conference venue (Room 112).

Canauxrama Paris (Private cruise along the Seine on the Henri IV boat)

Registered attendees and invited personnel should board at 5:00 pm on July 21 at the Port of Paris-Arsenal, beneath Place de laBastille. The pedestrian entrance is located in front of 50 boulevard de la Bastille,75012 Paris. Please arrive at the site by 4:45 pm.

Administration Desk

BEI staff will be available at the administration desk during the conference (Room 112).

Proceedings

Accepted papers are published in the Proceedings of BEI-2025. Attendees can download electronic copies from the conference webpage. Because BEI is a non-profit organization committed to advancing state-of-the-art knowledge, the Proceedings are available free of charge.

Name Badges and Tickets

Only registered attendees and invited personnel with name badges will be permitted to attend the BEI-2025 functions. Tickets will be required for all functional activities such as Welcome Reception, BEI Lunch, Coffee Breaks, and Gala Dinner. Please note that BEI will not reissue lost tickets.

Welcome Reception

The Welcome Reception of BEI-2025 will be held on the Henri IV boat from 5:00 pm to 6:30 pm on July 21. Each guest will be provided with a bottle of beer.

Coffee Breaks

All attendees are welcome to enjoy coffee breaks during intermissions between the parallel sessions at Atelier Jussieu, 23 Rue Jussieu, Paris, 75005. Tickets are required to redeem coffee products.

BEI Lunch

Plated course meals will be served to registered attendees and invited personnel at Bouillon Racine, 3 Rue Racine, Paris, 75006: 12:00 pm to 1:30 pm on July 22.

BEI Dinner

Plated course meals will be served to registered attendees and invited personnel at Le Train Bleu, Gare de Lyon, Pl. Louis Armand Hall 1, Paris, 75012: 7:00 pm to 9:00 pm on July 23.

Award Ceremony

Selected individuals will be recognized with award certificates.

Internet

Complimentary Wi-Fi will be available at the conference venue for all registered participants and invited personnel.

Disclaimer

The Bridge Engineering Institute, An International Technical Society, will make every effort to accommodate the needs of all attendees. However, the Institute disclaims all responsibility and accepts no liability for any circumstances related to this conference.

Plenary Speakers
(alphabetical order)

Dr. Karim Benzarti
Universite Gustave Eiffel, France

Speech Title: *Structural Strengthening with Composite Materials: Context in France and Overview of Recent Research Activities*

Dr. Karim Benzarti is a Research Director at Gustave Eiffel University in Paris (formerly IFSTTAR). He obtained his PhD in 1997 from Lyon University, specializing in macromolecular and composite materials. After a postdoctoral position at the French Institute of Petroleum, he joined IFSTTAR as a researcher in 1999. His research primarily focuses on the durability of bonded assemblies and FRP composite reinforcements in construction, as well as the mechanical and hygrothermal properties of bio-based building materials (polymer- and cement-matrix composites with natural fibers). He has contributed to numerous national and European projects and supervised around 15 PhD theses. Dr. Benzarti has co-authored over 100 peer-reviewed journal articles and guest-edited special issues of Construction and Building Materials in 2011 and 2019. He served on the Executive Committee of the International Institute for FRP Composites (IIFC) for five years and co-chaired the CICE 2018 Conference in Paris. More recently, he contributed to the establishment of French guidelines for the use of FRP rebars in concrete structures.

Plenary Speakers
(alphabetical order)

Professor Xuhui He, Ph.D.
Central South University, China

Speech Title: *Recent Developments in the Wind Resistance of Railway Bridges in China*

Dr. Xuhui He is a Professor of Civil Engineering in the School of Civil Engineering, Central South University (CSU), Changsha, Hunan, China. He serves as Dean of Undergraduate School and Director of the Wind Engineering Research Center at CSU. He was selected as the NSFC Distinguished Young Scholar and Excellent Young Scientist, and leading personnel of the national "Ten-thousand talents program". He is also Director of the Executive Committee of the Bridge Engineering Institute (BEI), An International Technical Society, and member of the Board of Directors, Branch of Bridge and Structural Engineering, Civil Engineering Society of China, and Bridge Engineering Branch of China Railway Society Professional Committee. In addition, he is the Editor-in-Chief of Advances in Wind Engineering (AWE), Associate Editor of the Journal of Central South University, and Editorial Board Member of the Transportation Safety and Environment and Advances in Bridge Engineering. His research interests include bridge wind engineering, wind-vehicle-bridge coupling vibration, and bridge intelligent monitoring and assessment. For many years, Dr. He conducted over 80 research projects of the national, provincial, and ministerial level. He won the National Technology Invention Award, National Science and Technology Progress Award, National Innovation Excellence Award, the Xplorer Prize funded by Tencent, Jeme Tianyou Railway Science and Technology Award (achievement award), and Mao Yisheng Railway Science and Technology Award.

Plenary Speakers
(alphabetical order)

Dr. Myra Lydon
University of Galway, Ireland

Speech Title: *Bridging the Gap: The EMBRACE Mobility Decision-Support Tool to Enable Inclusive Bridge Management for Stronger Rural Futures*

Dr Myra Lydon is a Civil Engineer and holds a PhD in Civil Engineering from Queens University Belfast (UK). Her work focuses on infrastructure resilience and maintenance decision making for climate adaptation, with a focus on bridges. She held a Royal Academy of Engineering 5 year Research Fellowship titled SMART Infrastructure which was focused enhancing the resilience of road networks. The research was supported by the Northern Ireland Department for Infrastructure who provided the platform for the development and demonstration of a bridge maintenance decision support tool. Her research also explores the integration of Structural Health Monitoring data for infrastructure management to which can inform on the true condition of assets and provide an early warning of damage or climate risks. She is also a visiting research fellow at Queens University Belfast. has been PI/Co-I on grants in excess of 10m focused on various aspects of transportation. She is a member of the ROI Committee for The Chartered Institution of Highways and Transportation (CIHT), and regional member of CIHT UK Council. She consults The Department for Infrastructure (DfI) and Translink on their infrastructure asset management and digital strategies. Her research has been ranked by the UK Research Excellence Framework (REF) in a 2021 Impact Case Study.

Plenary Speakers
(alphabetical order)

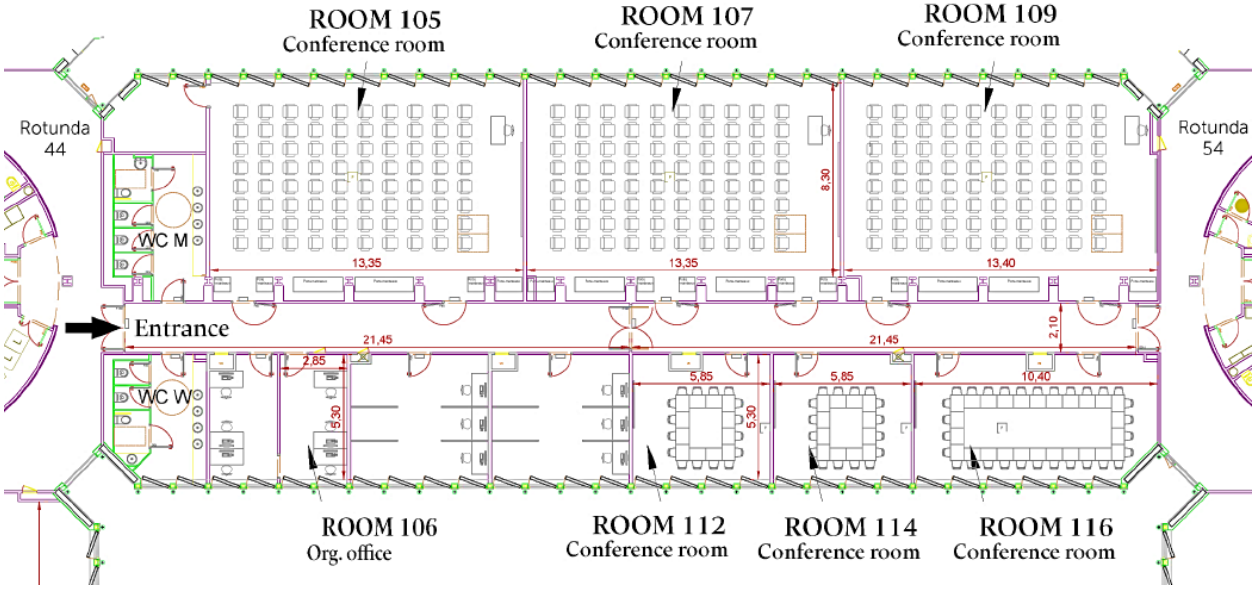
Professor Su Taylor, Ph.D.
Queen's University Belfast, Northern Ireland, UK

Speech Title: *Towards Net Zero Carbon Bridge Engineering through Structural Health Monitoring*

Dr. Taylor is currently the Dean of Research for the Faculty of Engineering and Physical Sciences, a Professor of Structural Engineering and leads the Intelligent infrastructure group at Queen's. She has accumulated over twenty years' experience in researching, developing and lecturing on issues associated with the built environment. Dr. Taylor has a track record in attracting research funding from the Engineering and Physical Sciences Research Council, USA-Ireland (through DfE/SFI/NSF tripartite agreement), InnovateUK, EU FP7, and Knowledge Transfer Partnership. She has current funding with EPSRC leading the Intelligent Infrastructure WP of the Prosperity Partnership developing near zero energy public transport. A prioritization of her research is to safeguard the integrity of our built environment; the components and the end users and her research activity aims to promote this. She intends to advance the area of intelligent sensing technologies with the use of advanced concretes and composites in, and for, the built environment through collaborative research and to foster her external links both nationally and internationally.

Conference Venue

Centre International de Conférences
Sorbonne Université
Address: Campus Pierre et Marie Curie
4, place Jussieu - BC 616, 75005 Paris, France
Phone: 01 44 27 21 17



Technical Program

Monday, July 21

General	Location: Canauxrama
5:00 to 6:30 pm	Registration/Welcome Reception

Tuesday, July 22

General	Location: Room 107
8:45 to 9:00 am	Opening Ceremony Moderated by **Yail Jimmy Kim**, University of Colorado Denver, USA
9:00 to 9:40 am	Plenary Speech I: **Karim Benzarti**, Universite Gustave Eiffel, France Moderated by **Isamu Yoshitake**, Yamaguchi University, Japan
9:40 to 10:20 am	Plenary Speech II: **Myra Lydon**, University of Galway, Ireland Moderated by **Issam Harik**, University of Kentucky, USA

Award Ceremony	Location: Room 107
10:20 to 10:30 am	Paper Awards

Parallel Session A-1 **(Monitoring)**	Location: Room 107
Chair: **Myra Lydon**, University of Galway, Ireland	
10:40 to 11:00 am	Detection of Grout-Filled Boundary of Post-Tensioned PC-T Girder Using the Wide-Range Ultrasonic Testing (WUT) Yuki Kurihara, Masato Kitikawa, Takanori Kinoshita, and Isamu Yoshitake
11:00 to 11:20 am	Development of a Digital System for Structural Data Mapping, Filing, and Integrating 3D CAD Models into 360-Degree Photos for Structural Data Visualization Masayuki Shobuzako, Subhash Kumar Sah, Haruna Ito, and Rupesh Machamasi

Parallel Session A-2 **(Seismic, Fatigue, and Durability I)**	Location: Room 109
Chair: **Karim Benzarti**, Universite Gustave Eiffel, France	
10:40 to 11:00 am	Installation Effect of Bellows-Type Steel Dampers Against Vertical Seismic Motion on Bearing Friction Force Dai Sagou, Masahide Matsumura, Hiroshi Zui, and Takehiko Himeno
11:00 to 11:20 am	Influence of Structural Deterioration Due to Chloride-Induced Corrosion of Steel Rebars on the Seismic Performance of RC Bridge Piers Donatello Cardone, Giuseppe Perrone, and Vito Possidente

Group Picture	Location: Sorbonne
11:20 to 11:30 am	Group Picture

Lunch	Location: Bouillon Racine
12:00 to 1:30 pm	BEI Lunch Moderated by **Vanissorn Vimonsatit**, Macquarie University, Australia

Parallel Session A-3 **(Materials and Performance I)**	Location: Room 107
Chair: **Isamu Yoshitake**, Yamaguchi University, Japan	
2:00 to 2:20 pm	A Basic Study on Rheology Analysis for Static Yield Stress in Cement Paste for 3D Printing Ki-Yeol Kim and Myoung-Sung Choi
2:20 to 2:40 pm	Optimizing Calcination Temperatures for Energy Efficient Calcium Oxide Production from Scallop Shell Waste Novik Kurohman, Heesup Choi, Masumi Inoue, and Mingrui Wang
2:40 to 3:00 pm	Development of Waterproofing Ultra-High-Strength Mortar for Repairing RC Bridge Deck Slabs Shinya Akae, Manabu Ishida, and Isamu Yoshitake

Parallel Session A-4 **(Rail Bridges)**	Location: Room 109
Chair: **Vanissorn Vimonsatit**, Macquarie University, Australia	
2:00 to 2:20 pm	Impact of Near-Fault Earthquakes on the Responses of Multi-Span Simply-Supported Railway Bridges Hsiao-Hui Hung, Chang-Wei Huang, and Jing-You Lin
2:20 to 2:40 pm	Train-Induced Coupled Vibrations of High-Speed Railway Viaduct with an Under-Crossing Metro Tunnel: Model Construction and Vehicle Riding Safety Analysis Borong Peng
2:40 to 3:00 pm	Exploration on Effect of Ballast Structure on High-Speed Railway: Focusing on Crosswind Aerodynamics Codeling Zuyu Xie, Xuhui He, E. Deng, and Huan Li

Break	Location: Atelier Jussieu
3:00 to 3:30 pm	Coffee Break

Parallel Session A-5 **(Modeling and Advanced Analysis I)**	Location: Room 107
Chair: **Shozo Nakamura**, Nagasaki University, Japan	
3:30 to 3:50 pm	Application of Stable Diffusion for Bridge Pier Damage Prediction Tzu-Kang Lin, Ya Hsuan Chiang, Ping Hsiung Wang, Yu-Chi Sung, and Kuo-Chun Chang
3:50 to 4:10 pm	Verification and Application of B4-TW Shrinkage and Creep Prediction Model Wen-Cheng Liao and Jenn-Chuan Chern
4:10 to 4:30 pm	Effects of the Flexible Vortex Generators on the Vortex-Induced Vibration of Two Tandem 4:1 Rectangular Cylinders Jing Zhu, Hanfeng Wang, and Xuhui He
4:30 to 4:50 pm	Seismic Performance Evaluation of Thin-Walled Stiffened Stainless-Steel Bridge Piers with Welded Square Box-Sections Redeat Kassaye and Iraj H.P. Mamaghani

Parallel Session A-6 **(Ultra-High Performance Concrete I)**	Location: Room 109
Chair: **Takashi Yamane**, Kyokuto Kowa Corp, Japan	
3:30 to 3:50 pm	Effect of Rheology on Bond Behavior of Ultra-High Performance Concrete (UHPC) Bridge Deck Overlays Juan P. Roncal and Zachary B. Haber
3:50 to 4:10 pm	Evaluation of Air Tightness Properties of Ultra High Performance Concrete for Application in Hyperloop Infrastrucrure Jae-Yoon Kang, Gi-Hong An, and Gum-Sung Ryu
4:10 to 4:30 pm	Shrinkage Characteristics and Restrained Shrinkage Cracking of Ultra-High Performance Concrete with and without Internal Curing Zhifu Yang
4:30 to 4:50 pm	Numerical Study on the Effects of Fiber Dispersion and Deformation Characteristics on the mechanical properties of UHPFRC Can Yang, Pengru Deng, and Xuhui He

General	Invitation only
7:00 to 9:00 pm	BEI Meeting

Wednesday, July 23

General	Location: Room 107
8:30 to 9:15 am	Plenary Speech III: **Xuhui He**, Central South University, China Moderated by **Takashi Yamane**, Kyokuto Kowa Corp, Japan
9:15 to 10:00 am	Plenary Speech IV: **Su Taylor**, Queen's University Belfast, UK Moderated by **Riadh Al-Mahaidi**, Swinburne Univ. of Tech., Australia

Break	Location: Atelier Jussieu
10:00 to 10:30 pm	Coffee Break

Parallel Session B-1 **(Ultra-High Performance Concrete II)**	Location: Room 107
Chair: **Masumi Inoue**, Kitami Institute of Technology, Japan	
10:30 to 10:50 am	Quantification of Fiber Orientation and Distribution in UHPFRC from 3D Reconstruction and Skeletonization on X-Ray CT Image Yuzhen Guan, Pengru Deng, and Xuhui He
10:50 to 11:10 am	Structural Performance Evaluation of RC Beams Strengthened with R-UHPFRC Layers Under Progressive Damage Using Vibrational Testing Fahime Sokhangou, Yazan Abu Tahnat, Luca Sorelli, and Luc Chouinard
11:10 to 11:30 am	Investigation on Buckling Behavior of Orthotropic Steel Decks Strengthen by UHPC Overlay Zhiwen Zhu, Hesham Abdelbaset, and Ze Xiang
11:30 to 11:50 am	Precast, Prestressed Ultra-High Performance Concrete (UHPC) Piles for Coastal Bridge Foundations Ericka Weniger, Zachary B. Haber, and Gray Mullins

Parallel Session B-2 **(Repair and FRP Composites)**	Location: Room 109
Chair: **Woo-Tai Jung**, Korea Institute of Civil Engineering and Building Technology, Korea	
10:30 to 10:50 am	Reduction of the Maximum Stress Concentration Factor of CFST T-Joints by FRP Strengthening Under Tensile Axial Force in the Brace Saurabh Bajracharya, Shozo Nakamura, and Takafumi Nishikawa
10:50 to 11:10 am	Influence of Polyolefin, Polypropylene, Polyvinyl Alcohol and Basalt Fibers on the Strength and Toughness of Self-Compacting High Performance Concrete Piotr Smarzewski and Krystian Blaszczyk
11:10 to 11:30 am	Investigation of Early Deterioration Mechanism of Concrete Bridge Repaired by CFRP Sheets Using FT-IR Spectroscopy Takao Oya, Yoko Kawashima, Iwao Sasaki, and Tsuyoshi Hyakutake
11:30 to 11:50 am	Proposal of a Bond Strength and Splice Length Model for Structures Reinforced with CFRP Bar Dongkyu Lim and Myoungsung Choi

Lunch	Location: On your own
12:00 to 1:30 pm	Lunch

Parallel Session B-3 **(Seismic, Fatigue, and Durability II)**	Location: Room 107
Chair: **Masahide Matsumura**, Kumamoto University, Japan	
1:40 to 2:00 pm	Experimental and Analytical Study for Seismic Performance Assessment of Molded Transformers in Power Plants Sang-moon Lee and Woo-young Jung
2:00 to 2:20 pm	Effect of Wind Field Non-Stationarity on Short Suspender Fatigue in Long-Span Steel Truss Suspension Bridge Xiao Yang, Lingyao Li, and Hanfeng Wang
2:20 to 2:40 pm	Damage-Based Seismic Performance Design of Reinforced Concrete Bridges Ping-Hsiung Wang, Tzu-Kang Lin, Ping-Hsun Huang, Rih-Teng Wu, and Hsiao-Hui Hung
2:40 to 3:00 pm	Durability Investigation on FRP-Reinforced Concrete Subjected to a Coupled Erosion Environment Wei Li, Dayang Wang, Yongcheng Ji, and Yanmin Jia

Parallel Session B-4 **(Performance Evaluation I)**	Location: Room 109
Chair: **Jae-Yoon Kang**, Korea Institute of Civil Engineering and Building Technology, Korea	
1:40 to 2:00 pm	The Impact of the Use of Expanded Polystyrene (EPS) Geofoam on Thermally Induced Stresses on the Abutments of Integral Abutment Bridges: A Parametric Study Susan Faraji-Hennessey and Harsh Gandhi
2:00 to 2:20 pm	Load Rating PC Segmental Box Girder Bridge by Load Testing Abheetha Peiris, Taylor Perkins, and Issam Harik
2:20 to 2:40 pm	Preliminary Study of Vehicle-Bridge Interaction Using Instantaneous Frequency Response Functions Chia-Ming Chang and Xian-Zheng Hong
2:40 to 3:00 pm	Bridge Attachment Planning for Sustainable Maintenance and Management Yuichi Nakamura, Asami Yamamoto, and Koichiro Tamura

Break	Location: Atelier Jussieu
3:00 to 3:30 pm	Coffee Break

Parallel Session B-5 **(Performance Evaluation II)**	Location: Room 107
Chair: **Zhiwen Zhu**, Shantou University, China	
3:30 to 3:50 pm	Load Testing and Rating of a Continuous Steel Girder Bridge without Structural Plans Cody Hutchinson, Abheetha Peiris, and Issam Harik
3:50 to 4:10 pm	Analytical Approach for Proposing the Required Quantity of Noncorrosion Composite Anchors Based on Equipment Weight in Hydrogen Tank Installations Youngjun Bae and Wooyoung Jung
4:10 to 4:30 pm	Numerical Investigation of High-Energy Absorbing Cushion for Bridge Girders to Mitigate Over-Height Vehicle Collisions Haider Mraih, Javad Hashemi, Robin Kalfat, and Riadh Al-Mahaidi
4:30 to 4:50 pm	Treatment of Salt Damage in Reinforced Concrete Slab Using Pressurized Injection of Lithium Nitrite Naoyuki Tsumura, Tatsuya Kitada, and Takafumi Mihara

Parallel Session B-6 **(Modeling and Advanced Analysis II)**	Location: Room 109
Chair: **Xuhui He**, Central South University, China	
3:30 to 3:50 pm	Prediction of Rating Factors for Managing Heavy Vehicles with a Platform Trailer on RC Bridges for Shear Adequacy-Inaccuracies from Using a Semi-Automatic Approach Vanissorn Vimonsatit and Koon Wan Wong
3:50 to 4:10 pm	Aerodynamic Characteristics and Flow Mechanism of a Cylinder-Plate in a Separated Flow Yage Wu, Huan Li, Xuhui He, Jing Zhu, and Hanfeng Wang
4:10 to 4:30 pm	Research on the Digital Safety System of Intelligent Transportation Interchange Bridges on Expressways in Cold Regions Yongcheng Ji, Guangwen Liao, Bowen Yao, and Wenyuan Xu
4:30 to 4:50 pm	Bond of UHPC with Various Reinforcing Elements Jun Wang and Yail J. Kim

Dinner	Location: Le Train Bleu
7:00 to 9:00 pm	BEI Dinner Moderated by **Xuhui He**, Central South University, China

Thursday, July 24

Parallel Session C-1
(Materials and Performance II)
Location: Room 107

Chair: **Isamu Yoshitake**, Yamaguchi University, Japan

8:40 to 9:00 am	Experimental Study on Anchorage Performance for CFRP Cables Woo-Tai Jung, Tae-Kyun Kim, and Seung-Hyeon Hwang
9:00 to 9:20 am	A Mechanochemical Approach to the Synthesis of Calcium Bicarbonate from Marine Shell Waste Through Saturated Carbonic Acid Water Mingrui Wang, Heesup Choi, Masumi Inoue, and Novik Kuroman
9:20 to 9:40 am	Chemical Resistance and Mechanical Properties of Mortars with Biochar as Partial Cement Replacement Sangwoo Kim, Dongyeop Han, and Jinsup Kim
9:40 to 10:00 am	Effect of Boiler Slag, Cement Kiln Dust and Polypropylene Fibers on Long-Term Mechanical Behavior of High-Performance Concrete Piotr Smarzewski and Paulina Dziomdziora

Parallel Session C-2
(Modeling and Advanced Analysis III)
Location: Room 109

Chair: **Vanissorn Vimonsatit**, Macquarie University, Australia

8:40 to 9:00 am	Study on the Vibration Characteristics of PC Girder Specimen with Steel Corrosion by Microtremor Measurements T. Kyutoku, Y. Akira, Y. Kimura, T. Yamaguchi and M. Suzuki
9:00 to 9:20 am	Analytical Study of Cracking at Bearing on Performance of Concrete Girders Shinichiro Matsuzaki and Ken Watanabe
9:20 to 9:40 am	Parameters Controlling the In-plane Rotation of Skewed Integral Abutment Bridges Caused by Thermal Loading: An Analytical Study Susan Faraji-Hennessey
9:40 to 10:00 am	Few-Shot Concrete Crack Segmentation Framework Based on Refined Foundation Model Jiapeng Yao, Pengru Deng, and Xuhui He

Parallel Session C-3
(Experimental Techniques)
Location: Room 107

Chair: **Abheetha Peiris**, University of Kentucky, USA

10:00 to 10:20 am	Behavior of Reinforced Concrete Deep Beams with Cold Joints B. Li, H.-C. Wang, E. Saqan, A.C. Ferche, and O. Bayrak
10:20 to 10:40 am	Novel Repair of Transversely Cracked Prestressed Girders Using Shape Memory Alloys Dachina Gunasekaran and Bassem Andrawes
10:40 to 11:00 am	Quantitative Evaluation of the Influencing Factors for Measurement Using Green-Laser R. Machamasi, K. Takata, T. Akazawa, and M. Shobuzako

Parallel Session C-3 **(Experimental Techniques)**	Location: Room 107
11:00 to 11:20 am	Shear Strength of Reinforced Concrete Beam-Column Joints Youngjun Cho, Sunho Lee, Kyujeong Park, Kil-Hee Kim, and Jung-Yoon Lee
11:20 to 11:40 am	Adaptability of Concrete Repair Using Adhesive Sheets Takao Oya, Yoko Kawashima, Iwao Sasaki, and Tsuyoshi Hyakutake

Parallel Session C-4 **(Performance Evaluation III)**	Location: Room 109
Chair: **Wei Li**, East University of Heilongjiang, China	
10:00 to 10:20 am	Experimental Study and Field Application of the Precast Culvert with Arcuate Corners Kenji Yoshitake, Hidetoshi Maeda, Masahiro Ishizaki, and Shohei Ikeda
10:20 to 10:40 am	Research on the Digital Safety System of Intelligent Transportation Interchange Bridges on Expressways in Cold Regions Yongcheng Ji, Guangwen Liao, Bowen Yao, and Wenyuan Xu
10:40 to 11:00 am	Durability and Carbon Footprint Reduction of Concrete with Recycled Coarse Aggregate: Evaluation under Sulfate Exposure and Residual Energy Testing C.R.H. Cala, K.W.C. Aguirre, and R.A.M. Otiniano
11:00 to 11:20 am	Development and Field Validation of Electromagnetic Sensors for Nondestructive Testing of Tendon-Based Bridge Structures K.-Y. Park, C. Joh, J.-Y. Choi, I. Kwakh, and J.-H. Lee
11:20 to 11:40 am	Plastic Shrinkage Cracking in Latex-Modified Concrete Utilized for Bridge Deck Overlay V. Panov, S. Choi, T. Ha, J. Lee and K.-K. Yun

General	Location: Room 107
11:45 to 12:00 pm	Closing Ceremony Moderated by **Isamu Yoshitake**, Yamaguchi University, Japan

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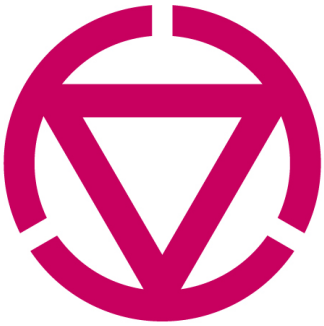

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