

Second Announcement and Program

14th Japanese German Bridge Symposium
September 17 - 20, 2025
Munich, Germany



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General Information

This is the second announcement for the
14th Japanese German Bridge Symposium
 to be held **September 17 - 18, 2025**
 in **Munich, Germany**.

The symposium will address all aspects of civil engineering structures and materials. Scientists, engineers, road and rail administrations and others interested in the symposiums technical areas are invited to participate and contribute.

Technical Program

- Harmonized European specifications for bridge design and dimensioning
- Structural monitoring
- Fatigue
- Strengthening and refurbishment
- Earthquake
- Sustainability
- BIM
- Projects

Social Activities

Besides the many cultural activities Munich, the capital of Bavaria, is offering the following activities are planned:

- Cocktail Hour
- Symposium Banquet

Language

The official language of the conference will be English.

Registration Information

All persons interested in participating in the symposium (with the exception of members of the japanese delegation) are requested to register online on the booking page of the Universität der Bundeswehr München:

<https://events.unibw.de/fvki/jgbs2025>

Members of the japanese delegation are requested to send their contact and travel details by email to:

osamu.oyama@oit.ac.jp

Further registration details are provided on the homepage of the symposium:

<https://www.jgbs.de>

The participation fee for Symposium is:

380,- Euro	per participant,
180,- Euro	for participants from universities and authorities, young engineers
30,- Euro	for students and retirees (except Symposium Banquet).

The fee includes:

- Coffee breaks, lunches on conference days, Cocktail Hour and Symposium Banquet
- Printed Book containing the abstracts
- CD-Rom containing the full papers



Conference Venue

September 17, 2025
Technische Universität München
Central Building - Lecture Room 1100
Arcisstraße 21, 80333 München

September 18, 2025
Universität der Bundeswehr München
Building 33/100 - Audimax and adjoining Lecture Rooms
Werner-Heisenberg-Weg 39, 85577 Neubiberg

Organization

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Program

September 17. at the Technical University of Munich

Timetable		Session
08:00	09:30	Registration, Get Together
09:30	10:00	Opening Ceremony
		Keynote Lectures
10:00	10:30	Deterioration Behavior of Concrete Subjected to Frost Damage with Rapid Thermoelectric Cooling Device <i>S. Ahmed, T. Matsumoto</i>
10:30	11:00	Flood-Resilient Bridge Planning and Reconstruction after the 2020 Kuma River Floods <i>M. Matsumura</i>
11:00	11:30	Load-Bearing Behavior of Pultruded GFRP Deck Reinforced with Temporary Vehicle Deck Plate <i>A. Sato, I. Nishizaki, M. Ochiai, Y. Kitane, K. Nakashima, T. Goto, T. Tomiyama, K. Sugiura</i>
11:30	12:00	Ortho Composite Slabs for Road Bridges – Development of a new Structural Design <i>R. Stroetmann</i>
12:00	12:30	Rader Hochbrücke - A Semi-Integral Composite Bridge with 224 m Span Width <i>T. Lechner</i>
12:30	13:00	Safety Assessment of Cable-Stayed Bridges with Corroded or Broken Cable Strands <i>Y. Komatsu, N. Chikayasu, M. Takagi, K. Imanishi, K. Yoshimi</i>
13:00	14:30	Lunch
		Construction Methods and Logistics I
14:30	14:45	A Contribution to the Practical Processing of High-Strength Steels in Civil Engineering <i>J. Sommer, M. Volz</i>
14:45	15:00	Application of Bypass Method for Replacing Panel Points in Steel Truss Bridges <i>R. Sakura, N. Yoshioka, T. Yamaguchi</i>
15:00	15:15	Development of PCaPC Slabs for Highway Bridge with Cotter Joint <i>T. Watanabe, K. Honjo, S. Matsui</i>
15:15	15:30	Experimental Study on the Influence of Stiffness of Longitudinal Stiffeners on Elasto-Plastic Behavior of Hybrid Structures <i>K. Kato, N. Takeshima, S. Okada, H. Naito, M. Matsumura, T. Miyashita, K. Ono</i>
15:30	15:45	Extradosed Cables for new Overfly in Nuremberg - Distinctive Features for Assembly and Stressing <i>M. Schraml, C. Fischer</i>
15:45	16:00	High Capacity Viscous Fluid Dampers <i>T. Mano, T. Ebert, H. Redecker</i>
16:00	16:30	Coffee Break
		Construction Methods and Logistics II
16:30	16:45	Identification of Potentials and Applications for Additively Manufactured Reinforcement (WAAM) in Bridge Construction <i>L. Locher, T. Braml</i>
16:45	17:00	Mechanical Property of Multi Function-Rib <i>T. Koga, H. Fujibayashi, S. Yae, Y. Imagawa, O. Ohyama</i>
17:00	17:15	Military Bridge Classification - The Role of BRASSCO NG in NATO's Capability Profile <i>K. Buchenau, M. Spannaus</i>
17:15	17:30	Thermal Effects of Stud Welding from the Underside of Steel Deck Plate on the Adhesive of Steel Fiber-Reinforced Concrete Pavement <i>M. Hamano, M. Hirano, T. Nishishiba</i>
18:00	Welcome Party, Reception, Cocktail Hour	

Timetable		Session 1	Session 2	Session 3
08:45	09:00	Opening Ceremony		
		Composite and Hybrid Structures I	Bridge Monitoring and Data Systems I	Bridge Planning and Execution I
09:00	09:15	Analyzing the Edge Form of the Lower Concrete Slab in Double Composite Structure <i>I. Kitagawa, H. Fujii, Y. Imagawa, O. Ohyama</i>	AutoSatBridge Towards AI-Supported Bridge Monitoring Using Persistent Scatterer InSAR and High-Resolution TerraSAR-X Data <i>S. Scheiblauber, F. Seitz, J. Wimmer, M. Spannaus, T. Braml, M. Schmitt</i>	Additive Manufacturing in Bridge Engineering - Potential and Challenges <i>L. Yan, J. Blankenhagen, M. Abankar, D. Siebert, C. Radlbeck, M. Mensinger</i>
09:15	09:30	Bending Moment Capacity of Composite Girders with Partial Shear Interaction and Noncompact Steel Sections <i>S. Doi, H. Shahid, Y. Okui</i>	BDLM in Data Structural Health Monitoring of Recurrent Structures <i>R. Asso, D. Masera, G. Marano</i>	Analysis of Design of New Toyosaki Interchange On-Ramp Box-Girder Bridge and Rigid Connection to the Existing Bridge, and Subsequent Modifications for Widening <i>Y. Hashimoto, K. Nanjo</i>
09:30	09:45	Development of FRP Plate Joints for Ultra-High Durable Bridge Deck <i>S. Kishimoto, Y. Ito, T. Enomoto, T. Matsui, T. Matsumoto, S. Matsui</i>	Development of an Anchor-Bolts Inclination Measurement System using a Mobile 3D Scanning Device <i>T. Nakamura, R. Spring</i>	Basic Study on Shear Slip Behavior of Perfobond Strip Subjected to Thermal History <i>F. Hoshikawa, Y. Aoki, Y. Imagawa, O. Ohyama</i>
09:45	10:00	Experiment Study on Stiffness Estimation of Shear Connectors by Applying Thermal Stress in Composite Girder <i>M. Ito, Y. Imagawa, O. Ohyama</i>	DFOS-Based Monitoring for Prestressed Concrete Bridges without Minimum Reinforcement <i>H. Burger, S. Neumann, O. Fischer</i>	Basic Study on the Shear Capacity of Clothoid-Shape Dowel <i>N. Sawamura, T. Ishii, K. Kusakawa, N. Moki, Y. Imagawa, O. Ohyama</i>
10:00	10:15	Experimental Research for Practical Application of Steel Plate-Concrete Composite Deck without Stud <i>S. Yae, H. Fujibayashi, K. Iwata, S. Tsuji</i>	PCA-based Hyperspectral Iron(III) Detection for Remote Corrosion Assessment by UAS <i>D. Thomas, M. Gündel</i>	Design of Bridge Concrete Slabs Reinforced with GFRP Bars <i>J. Consalvo, M. Mairone, D. Masera, M. Corrado</i>
10:15	10:30	Experimental Study on Effect of Fillets on Stress Reduction at Flanges of Beam-to-Column Connections of Steel Rigid Frame Piers made of SBHS500 <i>D. Daimon, N. Morishita, K. Ono</i>	Plausibility Check and Exploring of Measurement Data at Digital Bridge Schwindegg <i>D. Mediel Cuadra, J. Wimmer, S. Küttenbaum, T. Braml</i>	Experimental Study on Elasto-Plastic Behavior of Gusset Plates of Sway Bracings <i>H. Kobayashi, S. Watanabe, O. Asanuma, J. Hagino, T. Miyashita, R. Yamazaki, K. Ono</i>
10:30	11:00	Coffee Break		
		Composite and Hybrid Structures II	Bridge Monitoring and Data Systems II Integral and Modular Bridge Concepts I	Bridge Planning and Execution II Innovative Materials in Bridge Design I
11:00	11:15	Experimental Study on the Slip Behavior of Joints for Deformed Flange H-Shaped Steel Beams Coated with Inorganic Zinc-Rich Paint <i>R. Kigawa, S. Katano, M. Mizuno, M. Yokoyama, T. Yamguchi</i>	Recent Findings of the Research Project "ZIPStatik" on Inspection-Supported Reliability Assessment of Existing Bridges in Germany <i>T. Braml, C. Kainz, S. Küttenbaum, S. Maack, A. Taffe, C. Stettner, M. Heinze, P. Kotz, K. Reinke, M. Keuser, A. Soukup, S. Schulze</i>	Experimental Study on Load-Carrying Capacity of Outstanding Plates made of SUS316 <i>T. Masanobu, S. Watanabe, C. Scatone Bedin, R. Yamazaki, T. Miyashita, Y. Miyazaki, K. Ono</i>
11:15	11:30	Influence of Intersection Angles on Elasto-Plastic Behavior of Beam-to-Column Connections with Fillets made of SBHS500 <i>S. Nonomura, Y. Shinozaki, D. Daimon, M. Nobuaki, S. Okada, K. Ono</i>	Sensor Calibration through Load Tests at the Digital Bridge Schwindegg <i>J. Wimmer, C. Kainz, D. Mediel Cuadra, E. Simisi, R. Schütz, P. Radusch, E. Rezaie, S. Küttenbaum, T. Braml</i>	Experimental Study on Stiffness of Headed Studs for Design of Flexible Composite Girder with Precast PC Slab <i>Y. Imagawa, T. Fujimoto, M. Iwai, K. Ohgaki, T. Ishikawa, N. Okubo, K. Chou</i>
11:30	11:45	Innovative Prefabricated Filler Beam Bridge with Integral Abutments <i>D. Kopic, P. Weidner, T. Ummenhofer, K. Tutzer, M. Mensinger</i>	Smart Bonded Tendons - An Enabler for Condition Monitoring of PC Bridges During the Entire Lifetime <i>C. Gläser, J. Laukner</i>	Orthotropic Steel Bridges in Germany <i>H. Friedrich</i>
11:45	12:00	Mechanical Behavior of High-Strength Bolted Frictional Joints in GFRP Composite Members <i>K. Chikura, G. Hayashi, Y. Oshiro, K. Moritsu, K. Hashimoto</i>	Replacement of a Weir Bridge Superstructure under Challenging Constraints <i>T. Fürstberger, R. Friedl</i>	Experimental Study on Elasto-Plastic Behavior of Steel Bridge Piers made of SBHS500 under High Compressive Axial Force <i>N. Takeshima, S. Okada, R. Yamazaki, K. Ono</i>
12:00	12:15	The Research Project "TraBI" (Track-Bridge Interaction) - Objectives and Methodology <i>M. Wenner, S. Schneider, D. Huber, C. Kang, S. Plica, A. Hacker, R. Nachtigall, K. Zdanowicz, T. Arana</i>	Research on Safety Levels of Existing Bridges <i>Y. Kamo, Y. Okui</i>	Experimental Study on Elasto-Plastic Behavior of Steel Columns with Gusset Plates made of SUS316 <i>O. Asanuma, S. Watanabe, J. Hagino, H. Kobayashi, T. Miyashita, R. Yamazaki, K. Ono</i>
12:15	12:30	The Research Project BASIS: Building-Adaptive Shielding for Exposed Infrastructure using Steel-Sandwich Constructions <i>M. Menne, M. Spannaus</i>	Selection of Bridge Type Based on the Planning Concept of a One Main Tower Cable-Stayed Bridge Intersecting a Fault and Seismic Study of Verification of the Fracture Process <i>R. Shinoda, Y. Soga, M. Shinohara, S. Fukaya</i>	Experimental Study on Influence of a Thin Mortar Layer and Headed Stud Spacing of the Precast Concrete Slab to the Composite Action of the Composite Girder Bridge <i>T. Asano, F. Asano, T. Yamaguchi</i>

Timetable		Session 1	Session 2	Session 3
12:30	14:00	Lunch		
		Numerical Methods in Bridge Engineering I	Integral and Modular Bridge Concepts II Durability and Rehabilitation of Structures I	Innovative Materials in Bridge Design II
14:00	14:15	Smart Bridge Monitoring: Digital Twins and Sensor Technology Against Structural Aging	Slip Resistance Characteristics of High-Strength Bolted Connections under Shear and Tension Interaction	Investigation through Wheel Load Running Experiments on Pre-Damaged RC Beams to Understand the Process of Disintegration of Concrete in Bridge Slabs
		T. Treichel, A. Zielstorff, J. Wimmer, S. Küttenbaum, T. Braml, J. Hamm	Y. Sugimoto, S. Kato	E. Chhim, T. Matsumoto, K. Kakuma, A. Nishimura
14:15	14:30	An Numerical Study on Ultimate Strength of Cold-Formed Square Hollow Sections made of SUS304	Study on Liquefaction Countermeasures for the Jyuso Bridge	Investigations on the Shear Behavior of Old Post-Tensioned Concrete Bridges using Beam Elements with Realistic Heights
		R. Yamazaki, D. Yokoyama, S. Watanabe, K. Ono	Y. Komatsu, N. Chikayasu, K. Nawa, T. Ushijima, J. Xie	S. Lamatsch, O. Fischer
14:30	14:45	Analytical Study on Shearing Force and Relative Slip of Steel-Concrete Composite Slabs with Pipe Shear Connector	The Loading Capacity of RC Column Members Affected by ASR	Mechanical Properties of SUS316 and SUS323L: Comparison with Carbon Steels for Bridges
		K. Ikeda, M. Yamamoto, Y. Imagawa, O. Ohyama	Y. Hayata, J. Taniguchi, Y. Mikata, S. Inoue	R. Yamazaki, J. Hagino, S. Watanabe, T. Matsumura, T. Iida, D. Daimon, S. Okada, K. Ono
14:45	15:00	Automating Bridge Design with Parametric Modelling, Integrated FEM/BIM Workflows and Point Clouds	Unusual Constraints for the Assembly of the Cable-Stayed Kaiser-Otto-Bridge in Magdeburg - Special Features and Answers	Overview of Alloyed Steel Containing Niobium: Application in Bridges and Offshore Structures
		V. Boretti, A. Surendiran, P. Palumbo, M. Balestra, D. Masera	A. Heiland, U. Heiland, O. Schreiber	F. Aruwan, M. Mensinger
15:00	15:15	Damage Detection in a Scaled Steel Arch Bridge Model Using a 2D Convolutional Neural Network Trained on Frequency Response Images	Application of Welding in the Context of Rehabilitation of Historical Steel Structures - A Project Overview	Product Improvement of MAURER Finger Joint Type FP
		K. Akahoshi, G. Hayashi, H. Furuta, T. Yamaguchi	L. Cwienzek, L. Sieber, H. Flederer	T. Ebert, T. Mano, H. Redecker
15:15	15:30	Data Analysis for the Implementation of BIM in the Construction Phase of Railway Infrastructure Projects	Development of Highly Corrosion-Resistant Pre-Treated High-Strength Bolts for Enhanced Durability and Improved On-Site Construction Efficiency	Study on the Shear Strength of the Steel Plate Shear Connector Considering the Effect of Plate Thickness of Bottom Plate in Composite Slab
		T. Noack, P. Markert, B. Buuck, C. Barr, A. Hamdan, S. Marx	T. Iida, K. Sugiura, T. Tomiyama, Y. Hasegawa	T. Ishii, K. Asano, R. Minata, Y. Imagawa, O. Ohyama
15:30	16:00	Coffee Break		
		Numerical Methods in Bridge Engineering II	Durability and Rehabilitation of Structures II	Bridge Design Standards and Dynamics
16:00	16:15	Integrating SHM and BIM for Predictive Bridge Maintenance: Insights from the DTEC-SHM Project	Evaluation of Site-Specific Traffic Loading in the Context of Prestressed Concrete Bridges at Risk of Stress Corrosion Cracking	Buckling Verification of Steel Bridges According to EN 1993-1-5:2025
		M. Köhncke, J. Grashorn, S. Keßler	T. Tepho, M. Nowak, J. Geng, O. Fischer	M. Mensinger, J. Ndogmo, N. Thomas
16:15	16:30	Numerical Investigation of Thermal Actions on Bridges	Experimental Study on Fatigue Durability of Square Pipe and Flat Plate in GFRP Road Deck Panel	Experimental Study on the Cyclic Bearing Behavior of High-Strength Bolted Friction Joints
		M. Ltaief, M. Mensinger	H. Matsuda, Y. Kitane, A. Sato, R. Matsumoto, K. Kubo, Y. Kamino, L. Yu, K. Sakai	R. Moriyama, T. Yamada, N. Hirotsawa, T. Yamaguchi
16:30	16:45	Numerical Study on Elevated Temperatures of FRP Members in the Event of Fire under Steel Bridge Girders	Introduction to the Study on Patch Plate Repair and Joints with High Strength Bolts and Adhesive	Harmonized European Specifications for Bridge Design and Dimensioning: The Eurocode FprEN 1995-2 Timber Bridges
		K. Ote, Y. Kitane, R. Matsumoto, A. Sato, K. Hanamura	T. Habukawa, T. Yamaguchi, M. Fujiwara	M. Gerold
16:45	17:00	Predicting the Deterioration of Municipal Bridge Networks Based on Causal Models of National Road Bridge Networks	Retrofitting of Pre-Damaged Welds using the Spot-Heating Technique	Riveted Railroad Bridge under Dynamic Load
		Y. Matsuoka, K. Sasai, K. Kaito, T. Yamasaki, T. Ikeda	M. Winkler, S. Knefelkamp, A. Dürr	F. Seitz, M. Spannaus
17:00	17:15	Closing Ceremony		
18:00		Symposium Banquet		