# The 9th German-Japanese Bridge Symposium, Kyoto, Japan

# GJBS 2012

Program

## Aim and Topic of the Symposium

The aim of the 9th German-Japanese Symposium is not only the exchange of knowledge and discussion on various technical topics on steel and composite bridges but also the encouragement of friendship among engineers and researchers in both countries. The main theme of this symposium is "bridge safety, management and monitoring". The papers to be presented for the symposium are preferred to fall into one of the following topics:

- (1) safety of bridges (theme topic)
- (2) maintenance and monitoring of bridges (theme topic)
- (3) design and construction of steel, composite and concrete bridges
- (4) fatigue and strength of steel bridges
- (5) railway and road bridges.
- (6) natural disaster (earthquake, tsunami, etc.)

## Symposium Organization

**Chair** Prof. K. SUGIURA, Japan

**Co-Chair** Prof. I. MANGERIG, Germany

#### Honorary member

Prof. G. ALBRECHT, Germany Prof. K.ZILCH, Germany Prof. S. MATSUI, Japan Prof. K. YAMADA, Japan Prof. T. KITADA, Japan Dr. R. BERGMANN, Germany

#### Advisory Committee

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#### Symposium Committee Chair

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#### Secretary

Prof. Y. OSHIMA, Japan

# Symposium Information

#### Venue

Kyoto University, Yoshida Campus -Conference rooms and international conference rooms in Clock Tower Centennial Halls http://www.kyoto-u.ac.jp/en/access/getting/getting\_1.htm http://www.kyoto-u.ac.jp/en/access/campus/main.htm

#### Secretariat Office

Secretariat office of GJBS2012 will be operated in Meeting Room 4 (second floor).

#### On site registration

Registration on site can be proceeded in the reception desk located in the first floor (first day) or the second floor (second day).

Registration fee General 35,000 JPY Studend 10,000 JPY (excluding Banquet fee)

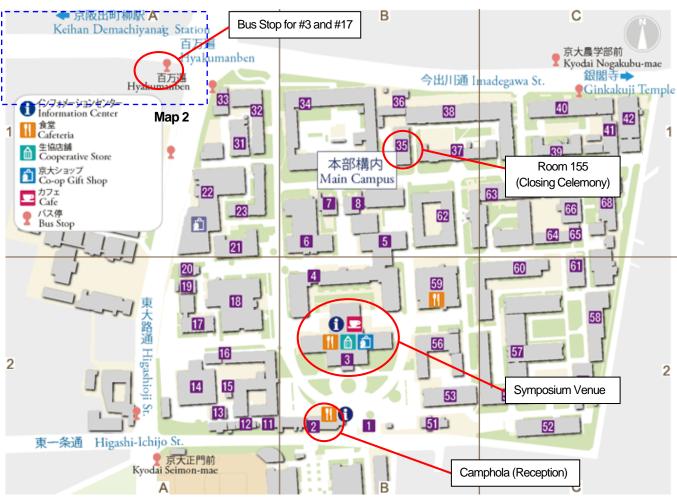
#### Reception

Reception will be held in Camphola in Kyoto University. Camphola is next to the main gate of Yoshida Campus. Reception party will start at 18:00.

#### Banquet

Banquet will be held in Kyoto Royal Hotel & Spa. From the venue to the hotel, public bus of #3 and #17 or keihan train (Demachiyanagi St. to Sanjo St.) is avaiable. Banquet will start at 19:00. http://www.ishinhotels.com/kyoto-royal/en/

### Yoshida Campus

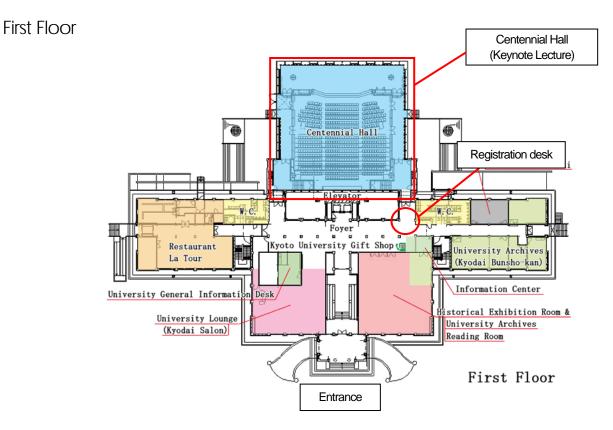


http://www.kyoto-u.ac.jp/en/access/getting/getting\_1.htm http://www.kyoto-u.ac.jp/en/access/campus/main.htm

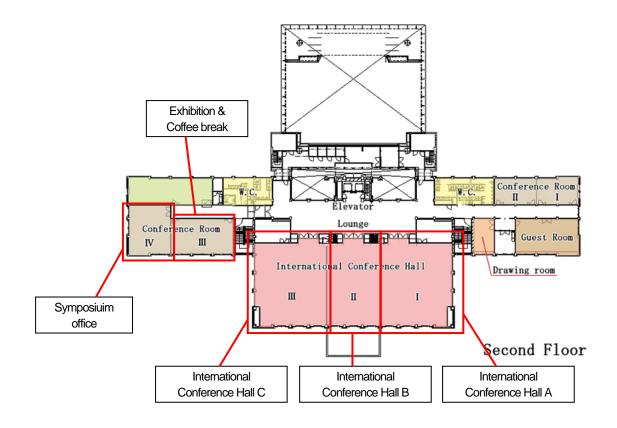


Map 2 (Demachiyanagi St. to Campus)

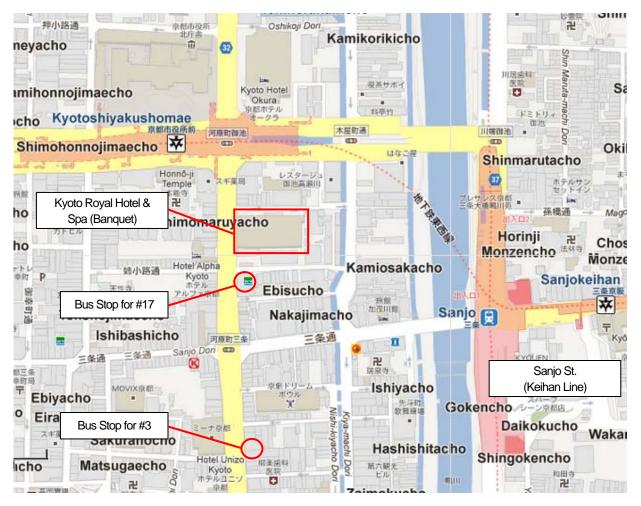
## **Clock Tower Centennial Halls**



Second Floor



### Kyoto Royal Hotel & Spa (Banquet)





# Exhibition

Exhibition booths are located in Conference room 3 (second floor).

## Bridge Life Extension Project



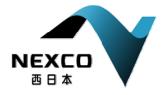
# Hanshin Expressway Co., Ltd



## Hilti Cooperation, Japan



West Nippon Expressway Co., Ltd



# Symposium Overview

	September, 10th						
		Centennial hall	Conference Hall A	Conference Hall B	Conference Hall C	Conference room 3	Room 155
9:30	10:00			Regist	ration		
10:00	10:30	Opening ceremony					
10:30	11:15	Keynote lecture 1					
11:15	12:00	Keynote lecture 2					
12:00	13:00		Lunch (Conference room 1-3)				
13:00	13:45	Keynote lecture 3				Exhibition	
13:45	14:30	Keynote lecture 4				Exhibition	
14:30	15:00	Coffee break (Meeting Room 3)					
15:00	17:00		Session 1A	Session 1B	Session 1C	Exhibition	
18:00	20:00	Reception (Camphola)					

	September, 11th						
		Centennial hall	conference Hall A	conference Hall B	conference Hall C	Conference room 3	Room 155
9:30	11:30		Session 2A	Session 2B	Session 2C	Exhibition	
11:30	12:30		Lunch (Conference room 1-3)				
12:30	14:15		Session 3A	Session 3B	Session 3C	Exhibition	
14:15	14:45		Coffee break (Meeting Room 3)				
14:45	16:15		Session 4A	Session 4B	Session 4C	Exhibition	
16:45	17:00						Closing ceremony
19:00	21:00	Banquet (Kyoto Royal Hotel)					

	12th Sep (Technical Tour)				
8:30	9:30	Bus departure at Kyoto Royal hotel			
9:30	11:30	Technical tour to Katsura Campus			
11:30	30 12:30 Lunch				
12:30	16:00	Technical tour to the construction site of Hanshin Expressway			
17:30		Return to Kyoto Royal hotel			

Technical Excursion to Shikoku, 13-14, September

# Technical Program

		Conference Hall A	Conference Hall B	Conference Hall C	
	09:30-10:00		Registration		
	10:00-10:30		Opening Ceremony		
				(Clock tower centennial hall)	
	10:30-12:00	Keynote lecture(1) and (2) (Clock tower centennial hall)			
September 10th	12:00-13:00		Lunch	(Conference Hall)	
10011			Keynote Lecture(3) and (4)		
	13:00-14:30			(Clock tower centennial hall)	
	14:30-15:00	Coffee Break			
	15:00-17:00	Session <b>1A</b> :	Session <b>1B</b> :	Session <b>1C</b> :	
		Seismic design & Device	Composite structure	Monitoring & Assessment (1)	
	09:30-11:30	Session <b>2A</b> :	Session <b>2B</b> :	Session <b>2C</b> :	
		Analysis	Design & Construction (1)	Monitoring & Assessment (2)	
	11:30-12:30		Lunch		
	11.30-12.30			(Conference Hall)	
		Session <b>3A</b> :	Session <b>3B</b> :	Session <b>3C</b> :	
September 11th	12:30-14:15	Member & Structural performance	Design & Construction (2)	Fatigue & Strengthening (1)	
	14:15-14:45		Coffee Break		
	14:45-16:15	Session <b>4A</b> :	Session <b>4B</b> :	Session <b>4C</b> :	
		New material	Common	Fatigue & Strengthening (2)	
	16:30-17:00		Closing Ceremony	(Room 155)	

### September, 10th (MON) Kenynote Lecture

	Clock tower centennial hall
10:30-12:00	Keynote Lecture(1) and (2) Chairs: Kunitomo SUGIURA & Ingbert MANGERIG
	Structural Assessment of Existing Concrete Bridges in Germany E.h. Konrad ZILCH and Daniel DUNKELBERG
	Bridges and their technologies in the Hanshin Expressway Hidesada KANAJI
13:00-14:30	Keynote Lecture(3) and (4) Chairs: Kunitomo SUGIURA & Ingbert MANGERIG
	Technology development of West Nippon Expressway Yasuo HOZAKI
	Sustainable Bridge Design -a New Challenge for Engineers? Martin MENSINGER, Tim ZINKE, Marjolaine Pfaffinger and G. Schmitt-Thrö

### September, 10th (MON) Parallel session

	Conference Room-A	Conference Room-B	Conference Room-C
15:00-17:00	Session 1A: Seismic design & Device	Session 1B: Composite structure	Session 1C: Monitoring & Assessment (1)
	Chairs:	Chairs:	Chairs:
	Uwe DORKA & Akira KASAI	Guenter SEIDL and Teruhiko YODA	Yoshimi SONODA
	Ultimate Strength and Seismic Behavior for	Study on Shape and Placement Depth of Approach	On the Identification of Loads and Structural Properties
	Half-through Steel Arch Bridge	Slab Applied to Integral Abutment Bridge	with the Method of Inverse Finite Elements (IFEM)
	Evi Nur CAHYA, Toshitaka YAMAO and Nobumitsu	Nobumasa IWASAKI, Nobuyuki NIIHIRA, Kazuo TAKEHARA,	Sebastian ROESLER, Renato EUSANI, Michael HORTMANNS
	MORIYAMA	Osamu OHYAMA and Akimitsu KURITA	and Wolfhard ZAHLTEN
	Effect of Revised Level 2 Earthquake Ground Motions	Analysis on the Distortional Behavior of Composite	An Estimation Method of Varying Frequency with Time
	(Type I) on Nonlinear Response of Steel Bridge Piers	Box Girders	for Bridge under the Passing Train Load
	Sayuri KITAICHI, Kiyoshi ONO and Seiji OKADA	Luo GUOQING, Mensinger MARTIN and Ndogmo JOSEPH	Kodai MATSUOKA and Kiyoyuki KATIO
	Seismic Retrofit of Existing RC Pier with Reinforcing	A Study on Behavior of the Rigid Frame Bridge with	Field Measurement of Low Frequency Sound
	Steel Bar and CFRP Grid by Polymer Cement Mortar	Steel Girders Embedded in RC Abutments due to	Radiated from Highway Viaducts with Several Kinds of
	for Shotcrete.	Influence of Temperature	Expansion Joints
	Satoru NAKAMURA, Kohei YAMAGUCHI, Shinichi HINO and	Hirokazu MIYATA, Takeshi OSHIRO, Michiaki SAKATE and	Masahiko TSUBOMOTO, Mitsuo KAWATANI, Yohei TAKAMI
	Koichi SATO	Yoshito MAEDA	and Naoki KAWADA

Applications of Steel Bellows with Different Steel Material for Seismic Safety of a Viaduct Shinya HIRAHARA, Masahide MATSUMURA, Hiroshi ZUI, Kentaro TANAKA and Takashi YAMAGUCHI	Slip Strength of Perforated Rib Shear Connector Affected from the Concrete Confinement Yuuichi DOUKAN and Katashi FUJII	Dynamic Behavior of High-Speed-Railway-Bridges Steffen MARX and Sebastian SCHNEIDER
Advanced ML-MD Goseb Seismic Isolation System for Efficient Seismic Protection of Bridges in Southeast Europe Danilo RISTIC, Uwe DORKA and Jelena RISTIC	Experimental Study on Crack Width of Continuous Composite Girder with Steel-concrete Composite Deck Takashi KAMIJO, Taro TONEGAWA and Masatsugu NAGAI	Field Measurements of Traffic-induced Vibration of Straddle-Type Monorail PC Girder Viaducts Mitsuo KAWATANI, Chul-Woo KIM, Kiichi FUJITA, Takuya ENMEI, Eiichi KASHIWAGI and Yoshihiro OKASHIGE
Comparative Study between 2D Seismic Design Methods for Steel Bridge Piers with Circular Cross-section Kohei HASHIMOTO, Akira KASAI and Kulkarni Nishigandha GAJANAN	Connector under Effect of Bending-induced Concrete Cracks	Vibration Monitoring of a Steel Box Girder Bridge Using Wireless Sensors Mitsuo KAWATANI, Chul-Woo KIM, Hiromasa DOI and Ai YAMANO
Seismic Performance Investigation on High-speed Railway Train-bridge System Considering Their Coupled Vibration Xingwen HE, Mitsuo KAWATANI, Toshiro HAYASHIKAWA, Chul-Woo KIM and Takashi MATSUMOTO	Experimental and Numerical Study on Shear Behavior of Partially Encased Composite I-girders with Corrugated Steel Web Jun He, Zhaofei LIN, Yuqing LIU, Airong CHEN and Teruhiko YODA	Monitoring of Dynamic Properties of Bridges by Terrestrial Microwave Interferometry Jens SCHNEIDER, Matthias BECKER, Gwendolyn LÄUFER and Jonas HILCKEN
ExperimentalStudyonDynamicResponseCharacteristicof the BridgeRestrainerPlateSystemwithShockAbsorberDeviceNaokiWADA,HirokiTAMAI,YoshimiSONODAandSatoruMUNEMOTO	<b>The Continuation Method of Existing Bridges by</b> <b>Connecting Slabs for Removing Expansion Joints</b> <i>Misa Fujibayashi, Katsuaki Komoto and Koichi Sugioka</i>	Monitoring of Newly Constructed Potal Rigid-frame Bridge in Osaka Yuhei KAWAMOTO, Takashi YAMAGUCHI, Akihiko YOSHIKAWA, Nobuto OKUBO and Masahide MATSUMURA

### Septermber, 11th (Tue) Parallel session

	Conference Room-A	Conference Room-B	Conference Room-C
09:30-11:30	Session 2A: Analysis Chairs: Ingbert MANGERIG & Toshiro HAYASHIKAWA	Session 2B: Design & Construction (1) Chairs: Kunitomo SUGIURA	Session 2C: Monitoring & Assessment (2) Chairs: Chul Woo Kim
	Dynamic Response Analysis of Steel Truss Bridges with Different Types of Stress-strain Relationship of Steel Azusa MICHITANI, Kiyoshi ONO, Tetsunari IMAMURA and Nobuo NISHIMURA	Design and Construction of NAGATA Bridge Ken OUE, Hirayoshi IMAI and Mitsuru OTANI	Non-destructive Test for Rupture of Reinforcing Bar by Magnetic Flux Density Method Applied to Single Surface Koki TERASAWA, Makoto HIROSE, Toshiyuki ISHIKAWA, Atsushi HATTORI, Hirotaka KAWANO and Toyoaki MIYAGAWA
	Earthquake Response Analyses of Curved Twin I-Girder Bridges under Running Vehicles Xingwen HE, Toshiro HAYASHIKAWA, Mitsuo KAWATANI and Takashi MATSUMOTO	Construction of a Butterfly Web Bridge Kenichiro ASHIZUKA, Kenji MIYAMOTO, Kenichi KATA, Kenichi NAKATSUMI and Akio KASUGA	Indicators for Sustainability Assessment of Road Bridges Marjolaine PFAFFINGER, Martin MENSINGER and Wolfgang SCHNELL
	Finite Element Analysis of the Elastomeric Ring Bearing Ingbert MANGERIG, Toshihisa MANO and Johanns DISTL	Nonpenetrativ Dlamping Construction for Expansion Joints in Canal Bridges Gerhard HANSWILLE and Marco BERGMANN	A Fundamental Study on the Diagnostic Methods for the Existing RC Structure Using Infrared Thermography and Hammering Sound Test Tatsuro WATANABE and Yoshimi SONODA
	Elasto-plastic Behavior of Steel Frame Structures Taking into Account Buckling Damage Hamid AFZALI, Toshitaka YAMAO, Akira KASAI and Keizo YAMAMOTO	Design and Construction of Highway Viaduct Supported by New Steel Pipe Integrated Pier with Shear Link Masatsugu SHINOHARA, Hidesada KANAJI, Takashi KOSAKA and Tsutomu IMAI	Detecting Anomaly of an In-service Bridge Utilizing Bayesian Regression Kitauchi SOTARO, Chul-Woo KIM and Kunitomo SUGIURA
	Evaluation of Ultimate Compressive Strength of Corroded Steel Plates Songkeo SYPHAVANH and Satoshi NARA	Experimental Study on Low Cycle Fatigue Behavior of Concrete-filled Steel Bridge Piers Jin-Eun PARK, Takeshi HANJI, Kazuo TATEISHI and Sung-Min CHOI	Wavelet Based Damage Detection Approach for Bridge Structures Utilising Vehicle Vibration Patrick J. MCGETRICK and Chul Woo KIM
	Performance of Steel Bridge Curved Railing Using the Numerical Analysis Le THANH and Yoshito ITOH	Seismic Retrofit Design of a Steel Deck-type Langer Bridge with Seismic Dampers -Nishiike Bridge of Hanwa Expressway- Akira TAKAHASHI, Kazuyoshi SUKO, Tatsuo OGATA, Tomoaki NAKAMURA, Yuzuru HIROKAWA and Hiroshi EGUCHI	Statistical Analysis about a Difference of Pot-hole Generation Process between Bridge and Embankment Bunpei MIYAZAKI and Kiyoyuki KAITO
	Analytical Study on Ultimate Strength of Welded Steel Columns with Box Section Tetsunari IMAMURA, Kiyoshi ONO, Azusa MICHITANI, Seiji OKADA and Nobuo NISHIMURA	Military Live Load Model Consideration for Recalculation of Existing Bridges Roman LENNER and Manfred KEUSER	Bayesian Estimation of Mixed Markov Deterioraion Hazard Model Daijiro MIZUTANI, Kodai MATSUOKA and Kiyoyuki KAITO

	Analytical Solutions for Circular Plates with and without Hole under Symmetric and Antisymmetric Load Matthias SEEL and Geralt SIEBERT	Can Current Design Codes Serve as a Basis for a Realistic Determination of the Shear Capacity of Older PC Members? Daniel DUNKELBERG and E.h. Konrad ZILCH	Damage Estimates of Various Jointless Bridges Atsuo OGAWA, Saiji FUKADA and Yoshiyuki MOMIYAMA
12:30-14:15	Session 3A: Member & Structural performance Chairs: Mitsuo KAWATANI	Session 3B: Design & Construction (2) Chairs: Martin MENSINGER & Yukiko MITSUGI	<b>Session 3C: Fatigue &amp; Strengthening (1)</b> Chairs: Takeshi HANJI
	Study on Quantity of Rust and Corrosion Environment of the Weathering Steel Bridge Ryuichiro NAKAJIMA and Eiji IWASAKI	Ecobridge Project Simmerbach: Monitoring Results of a Non-ballast Composite Railway Bridge Daniel PAK, Maik KOPP and Günter SEIDL	Parametric Analysis of Asphalt Pavement Property Influence on Orthotropic Steel Bridge Deck Fatigue Life Li MING, Kunitomo SUGIURA and Kunitaro HASHIMOTO
	Experimental Study on Slip Behaviour of High Strength Bolted Joints for Underwater Steel Structure Sun HONGHE, Takashi YAMAGUCHI and Masahide MATSUMURA	Proposition of a New Type of Jointless System for Existing Concrete Bridges Yuichi ISHIKAWA, Minobu AOYAMA, Masami KUROYANAGI, Masatsugu NAGAI and Takeshi MIYASHITA	Fatigue Strength of Corroded Bridge Wires Shunichi NAKAMURA and Keita SUZUMURA
	Accelerated Exposure Test for Corrosion of Steel and Its Welded Part under Water Junya TAKEMI, Mikihito HIROHATA, Yasuo KITANE and Yoshito ITOH	First Projects with the Balanced Lift Method Johann KOLLEGGER, Susanne GMAINER and David WIMMER	Fatigue Behaviour of the Bottom Flange with Misaligned Butt Welded Joints Masahiro SAKANO, Daisuke YAMAOKA and Tetsuya MIZUNO
	Several Considerations about the Performance and the Evaluation for Bolted Joints Yukiko MITSUGI, Takashi YAMAGUCHI, Yoshihiko TODA and Akihisa KONDO	Development and Application of Precast Slab Considering of Rapid Replacing for Miyuki Bridge of Nishi-meihan Expressway Michitaro KIHARA, Kazuya OHARA, Satoshi HISHIDA, Akio SHIROZU, Hiroshi MIZUNO, Takashi HARA and Shigeyuki MATSUI	Study on Repairing Method of Existing RC Deck Slabs with Frost Damage Ko KAKUMA, Hiroshi MITAMURA, Shinya OMOTE and Shigeyuki MATSUI
	Influence of Material Strength on Ultimate Strength of Austenitic Stainless Steel Plates under In-plane Bending and Compression Yasuhiro MIYAZAKI and Satoshi NARA	VFT-Rail Construction Method for Very Slender Railway Bridges Günter SEIDL, Martin MENSINGER and Andreas JÄHRING	Finite Element Analysis on the Fatigue of RC Bridge Slabs Takashi MATSUMOTO, Yusuke KAHO, Toshiro HAYASHIKAWA and Xingwen HE
	Study on Mechanical Property of Higher Yield Strength Steel Plates for Bridges Takahiro TARUI, Kiyoshi ONO, Masahide MATSUMURA and Jumpei YOSHIYAMA	Strengthening of Three Old Bridges across the Main River to Resist Ship Impact M. KEUSER, R. LENNER and R. WENSAUER	An Experimental Study on the Fatigue Resistance of Frost-damaged Slabs after Partial Repair Work Shinya OMOTE, Hiroshi MITAMURA, Shigeyuki MATSUI and Toshiro HAYASHIKAWA
	Characteristics of Charpy Absorbed Energy of Steel Used for Overged Bridges in Cold Region Hidenori MATSUNAWA, Mikihito HIROHATA, Hiroshi MITAMURA and Toshiro HAYASHIKAWA	Discussion Method by using Dynamic Analysis for Quakeproofing Long-Span BridgesTadashi Nishikawa, Kiyoki Doi, Kenji Oku and Shunji Nagahashi	

	Session 4A: New material	Session 4B: Common	Session 4C: Fatigue & Strengthening (2)	
14:45-16:15	Chairs:	Chairs:	Chairs:	
	Geralt SIEBERT & Yasuo KITANE	Gerhard HANSWILLE & Takashi YAMAGUCHI	Masahiro SAKANO	
	Adhesive Stresses of Steel Members Strengthened by Externally Bonded CFRP Plates Masaru SHIMIZU, Toshiyuki ISHIKAWA, Atsushi HATTORI and Hirotaka KAWANO	Highlights of Civil Engineering and the UNESCO World Heritage-List Dirk BÜHLER	Reinforcement for Fatigue Damage of Welded Joints of Sole Plate in Steel Railway Composite Girder Yuichiro NIWA, Kentaro MATSUMOTO, Shuji YAJIMA and Yusuke KOBAYASHI	
	Experimental Study on Flexural Stiffening Effect of CFRP Strand Sheets Bonded to Steel Beams Yuya HIDEKUMA, Yusuke OKUYAMA, Masatsugu NAGAI, Takeshi MIYASHITA and Akira KOBAYASHI	Modeling and Progressive Failure Behavior Analysis of an Aging Truss Bridge Yuki NISHIMURA, Tomoaki UTSUNOMIYA and Masahiro SAKANO	Analytical Study on Strengthening Effects of U-shaped Splice Plates Attached onto Steel Deck Plates with U-ribs Satoshi KIMURA, Takashi YAMAGUCHI, Yoshio TANBA, Hirohki SUGIYAMA and Masahide MATSUMURA	
	Pressure Distribution in Sliding Elements of Structural Bearings Christian BRAUN and Wolfgang FOBO	Effect of Restraint on Residual Stress Generated by Butt-welding for Thin Steel Plates Mikihito HIROHATA and Yoshito ITOH	Study on Deterioration Analysis and Repair Plan for Decks of Highway Bridges by Utilizing Inspection Data Kazuaki YOKOYAMA, Shigeki KARIYAMA and Yoshiaki IKAWA	
	Alternate-loading Test of RC Bridge Piers Reinforced with Continuous Fiber Sheet against Bending Failure Toshikazu SAWAMATSU, Hiroshi MITAMURA, Hiroaki NISHI and Takashi MATSUMOTO	Application of Laminated Glass for Noise Protection Walls of High Speed Railway Lines and Test-based Assessment of its Fatigue Behaviour Andreas NÄBL and Martin MENSINGER	Wheel Load Running Test on Orthotropic Deck to Recreate the Cracks Penetrating Welding Beads Hiroshi ONISHI	
	Reduction Technique of Thermal Stress Induced in Steel Plate Strengthened with CFRP Plates Toshiyuki ISHIKAWA, Atsushi HATTORI, Hirotaka KAWANO, Takashi NAGAO and Akira KOBAYASHI	Glass Balustrades and Facades on Pedestrian Bridges Barbara SIEBERT and Tobias HERRMANN	Study on Fatigue Durability by Filling of Mortar in U-shaped Rib of Orthotropic Steel Deck Akiko Tabata, Yasumoto Aoki ,Hiroshi Onishi and Shigeyuki Matsui	
	Experimental Study on Flexural Behavior of Steel and GFRP Composite I Section Beams Lee Eng MING, Kunitaro HASHIMOTO, Hideki HIBI, Itaru NISHIZAKI and Kunitomo SUGIURA	Dynamic Experiments on a Highway Viaduct with Different Pavement and Parapet Conditions K.C. CHANG and C.W. KIM	Crack Propagation at Rib-to-Deck Welded Joints in Orthotropic Steel Decks Xiaochen JU, Kazuo TATEISHI and Sung-Min CHOI	

## Technical tour

#### September, 12th (Wed)

Technical Tours will depart on the Wednesday 12th September 2012, from the Kyoto Royal Hotel & Spa. The below technical tour timetable summaries are initial timings. All timings are subject to change. Please ensure that return times may vary due to traffic and travel and estimations. Registration is required for all participants in advance.

#### FACILITIES:

Kyoto University, Katsura Campus (Kyoto) Construction site -Hanshin Express Way, Ebie Junction- (Osaka)

#### TOUR DATE / TIME

- 8:30 Bus to depart Kyoto from Kyoto Royal Hotel & Spa
- 8:30 9:30 Travel to Katsura Campus
- 9:30 -11:30 Kyoto University, Katsura Campus
- 11:30 -12:30 Lunch
- 12:30 Depart Katsura Campus
- 14:00 Hanshin Express Way, Ebie Junction
- 16:00 Depart Osaka for Kyoto
- 17:30 Return to Kyoto Royal Hotel & Spa