

IABMAS Japan-China Workshop on Infrastructure Management Innovation

March 16 through 20, 2019

Osaka Umeda Campus
of Kansai University



戦略的イノベーション創造プログラム
Cross-ministerial Strategic Innovation Promotion Program



IABMAS Japan-China Workshop on Infrastructure Management Innovation
supported by SIP, IABMAS Japan and IABMAS China, IABMAS

March 16 through 20, 2019, Osaka
Umeda Campus of Kansai University

Honorary Chair: Dan M. Frangopol, Lehigh University, USA
Eiichi Watanabe, Kyoto University, Japan

General Chairs: Hitoshi Furuta, Kansai University, Japan
Airong Chen, Tongji University, China

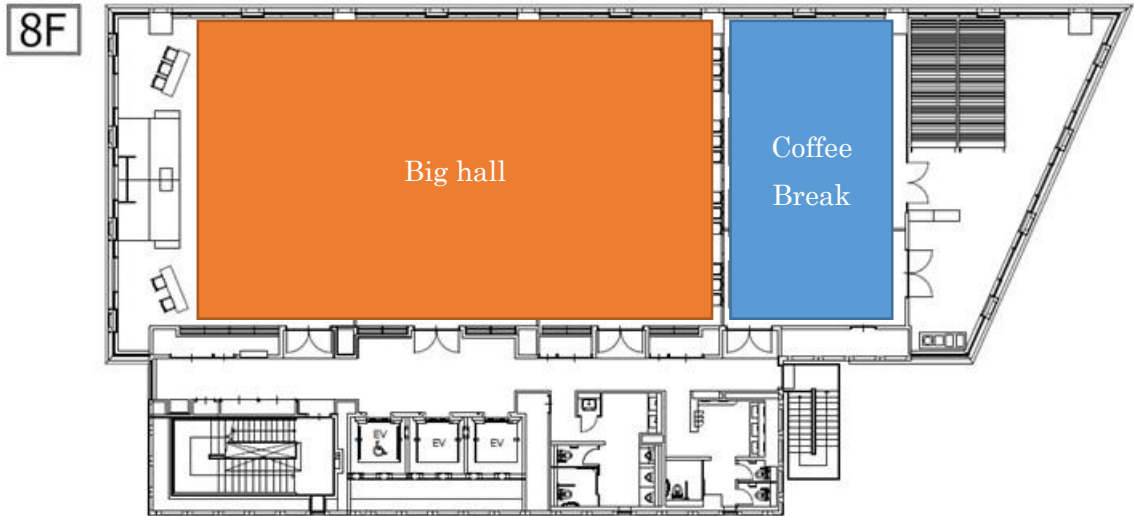
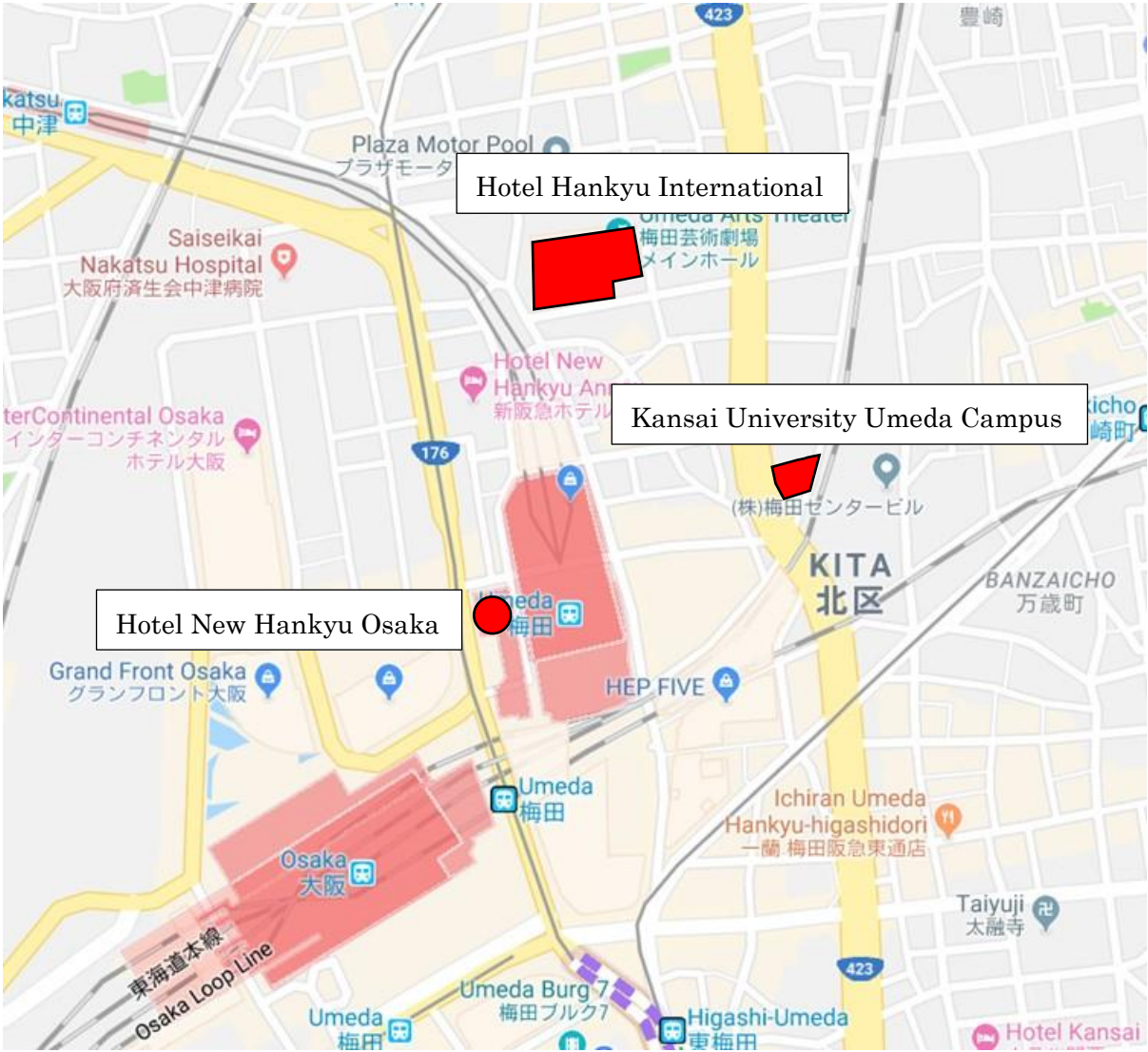
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Ichiro Iwaki, Nihon University, Japan (Co-chair)
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Tomohiro Miki, Kobe University, Japan
Kenichiro Nakarai, Hiroshima University, Japan
Pang-jo Chun, Ehime University, Japan
Koji Kinoshita, Gifu University, Japan



March 16 Saturday

Registration

March 17 Sunday

9:30-10:00

Registration

10:00-10:30

Opening Ceremony

10:30-12:00

Keynote Lecture 1
Chair:
Hitoshi Furuta

Yoza Fujino (Yokohama National Univ.)
Bridge Maintenance, Renovation and Management- R&D
Governmental Program in Japan-

Keynote Lecture 2
Chair:
Hitoshi Furuta

Dan M. Frangopol (Lehigh Univ.)
Reliability, Risk and Longevity of Bridges

12:00-13:00

Lunch

13:00-14:00

Owners' session
Chair:
Hiroaki Tsuruta

Natsumi Kitamura, Masashi Yamamoto, Tsuyoshi Nakata (Osaka Pref.)
Maintenance and Management of Urban Infrastructure Facilities in Osaka Prefecture

Ichiro Iwaki (Nihon Univ.)
A Proposal on Self-Maintenance Model for Bridges in Rural Areas

Osamu Takemoto (Hyogo Pref.)
Maintenance of Road Bridges in Hyogo Prefecture

14:00-14:20

Coffee Break

14:20-15:40

General Session 1
Chair:
Kenichiro Nakarai

Koji Kinoshita (Gifu Univ.)
Infrastructure Museum Provides Educational Resources for Engineers

Zichao Pan (Tongji Univ.)
Three-dimensional Lattice Modeling of Concrete Carbonation at Meso-scale Based on Reconstructed Coarse Aggregates

Rina Hasuike (Gifu Univ.)
Efficiency Promotion and Sophistication of Periodic Bridge Inspection by Robotic Technology with Drastically Reduced Time of Traffic Restriction

Dalei Wang (Tongji Univ.)
Prediction Analysis of Vortex-Induced Vibration of Long-span Suspension Bridge Based on Big Data

15:40-16:00

Coffee Break

16:00-17:20

General Session 2
Chair:
Naoshi Ueda

Chie Nakagawa, Makoto Hisada (Tohoku Univ.)
Development and Deployment of the Tohoku Infrastructure Management Platform (TIMP)

Rujin Ma (Tongji Univ.)
Experimental Study and 3D Cellular Automata Simulation of Corrosion Pits on Q345 Steel Surface under Salt Spray Environment

Kohei Yamaguchi (Nagasaki Univ.)
Application of new technologies to damaged reinforced concrete tee beam bridges and cut girder loading tests

Yue Pan (Tongji Univ.)
Computer Vision Based Methods for the Identifications of Dynamic Vehicle Loads on Long-span Bridges

18:30-

Banquet

Hotel Hankyu International (6F Zuicho)

March 18 Monday

9:30-11:00	Keynote Lecture 3 Chair: Mitsuyoshi Akiyama	Airong Chen (Tongji Univ.) Maintenance and Management of Large-scale Bridges – Problems and Solutions-
	Keynote Lecture 4 Chair: Mitsuyoshi Akiyama	Kiyoshi Kobayashi (Kyoto Univ.) Infrastructure Deterioration Process Modeling by Time-series Data with Long Memory
11:10-12:10	Owners' session Chair: Ichiro Iwaki	Kiyoki Doi, Takuya Iritani, Shunji Nagahashi (Osaka City) Study on Osaka Bridge Management System (OBMS)
		Hao Tian (Zhejiang Scientific Research Institute of Transport) Introduction on the Instrumentation for Wheel-Based Fatigue Testing
		Hiroshi Yokota (Hokkaido Univ.) Implementation of road infrastructure asset management in South-East Asian countries
12:10-13:30	Lunch	
13:30-14:30	General Session 3 Chair: Mikihito Hirohata	Katashi Fujii (Hiroshima Univ.) Field Inspection Tests in Hiroshima Area Using Robot Camera and UAV
		Toshiyuki Ishikawa, Hitoshi Furuta (Kansai Univ.) Nondestructive High-sensitivity Magnetic Detection of Corrosion in Light Pole Bases
		Pang-jo Chun (Ehime Univ.) Observations and investigations of the bridge collapse due to heavy rainfall disaster -Iwama Ohashi bridge and Tajikawa bridge-
14:30-14:50	Coffee Break	
14:50-15:30	General Session 4 Chair: Tomohiro Miki	Koji Mano (PASCO Corporation) An Experimental Study on Understanding the status of Bridge Pier Scour by ALB
		Hiroaki Tsuruta (Kansai Univ.) Inspection System using Flying Robots with Close-up Visual Inspection and Hammering Test Functions
15:30-15:40	Closing Ceremony	
18:30-	Dinner	Hotel Hankyu International (4F Shion)

March 19 Tuesday

Technical Tour

AM

Akashi Strait Bridge

Lunch

PM

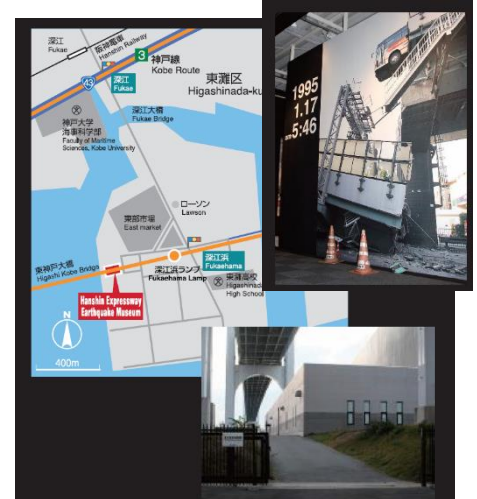
Hanshin Expressway Earthquake Museum and Field Visit to Yamatogawa Line

Delegates are to assemble at the lobby of Hotel New Hankyu Osaka at 8:50 on 19 March 2019. The chartered bus will depart at 9:00.

Hanshin Expressway Earthquake Museum

"Hanshin Expressway Earthquake Museum" is a facility designed to provide concrete information on Great Hanshin-Awaji Earthquake occurred in January 1995. "Hanshin Expressway Earthquake Museum" introduces not only the damaged structures but also methods used for reinforcement and removal as preventions of secondly disaster, responses in the 623 days and seismic retrofit, isolation and control technologies invented from the lessons.

This museum works actively for disaster management supports and educational assistance for disaster prevention.

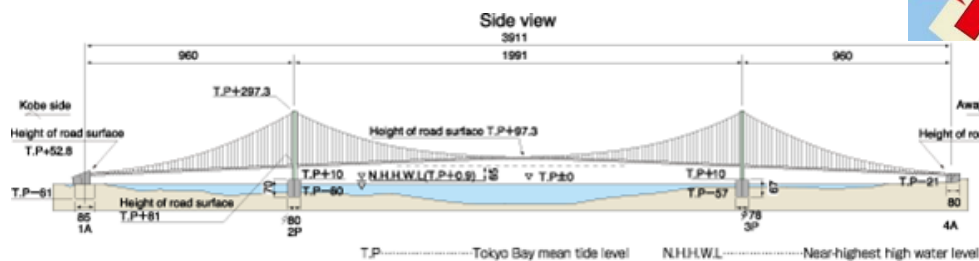
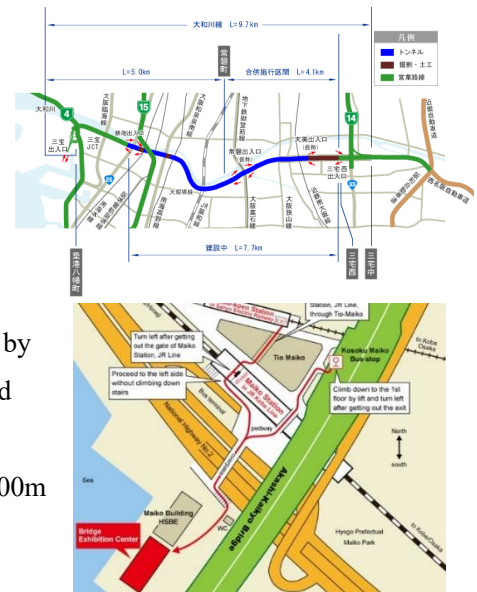


Akashi Strait Bridge

Akashi-Kaikyo Bridge is the longest span bridge in the world, located in Akashi Strait between Kobe and Awaji Island in Hyogo Pref. The total and central span lengths are 3,911m and 1991m respectively.

The Bridge was constructed as one of Honshu-Shikoku Bridge project, which is one of the greatest projects in Japan to connect Honshu with Shikoku by both highway and railway. The construction work was started in May, 1988 and completed in April, 1998 after 10 years' construction period.

In this tour, you can enjoy the panoramic view from the top of the Bridge, 300m over the sea.



March 20 Wednesday

City Tour