



**The 9th**

# FORUM8 Design Festival

2015-3Days+**Eve**

All about FORUM8 & Products.  
Era of Virtual Reality... FORUM8

**2015/11/18** Wed. — **20** Fri.

Shinagawa INTERCITY Hall / FORUM8 Tokyo



Organizer : FORUM8 Co., Ltd.

VDWC Organizer: Virtual Design World Cup Executive Committee  
CPWC Organizer: Cloud Programming World Cup Executive Committee

# FORUM8 Design Festival

## An invitation to Design Festival 2015

We at Forum 8 Co. Ltd. would like to express our sincerest gratitude over your continued attention, support and patronage.

As with previous years, Forum 8 will be hosting the 9th Design Festival 2015 at Shinagawa, Tokyo. However, this year we have extended the Festival by adding a new "Festival Eve" to the 3-day long event held at the Shinagawa Intercity complex. The new Festival Eve will be held at the Shinagawa Prince Hotel Club eX, making the entire Design Festival officially a 4-day long event.

Since its initial release in 1981, our UC-1 series has undergone through many major upgrades and continue to evolve into many new products, which will be announced during the event. We also released the Engineer's Suite Integration Computation and the 3DCAD Studio. For the FEM Analysis line, we have released Engineer's Studio Ver. 5 with enhanced plate element features, and updated the FEMLEEG to allow wider uses, such as 3-dimensional solid analysis. These efforts combined really allow us to strike deeply into the heart of CIM business and support our users through our high-precision 3-dimensional analysis.

Finally, the award-winning UC-win/Road has now both been widely used as a simulation tool, forming the backbone of our IM & VR products and CIM solutions. Furthermore, we also recently receive a lot of patronage from automakers and many other industries for simulation or concept visualization. Our latest example of such solutions is the 4K-5-screen CAVE driving simulator currently situated in Nagoya University. We continue to explore future domestic and foreign opportunities to help enhance the system development process of our clients.

Since October 1, 2015, we have established a new Nagoya Showroom at the 36th floor of Nagoya JR Central Towers. Similar to Tokyo, the new Nagoya Showroom will exhibit our integrated systems and host web seminars.

The typical 14th 3D VR Simulation Contest, the 16th UC-win/Road Conference, the 9th Design Conference have an unprecedented increase in popularity this year. The 2nd National Resilience Design Award, and our student contests, the 5th VDWC and the 3rd CPWC have all received an all-time high in attention levels and projects. During each sessions, we will invite guest presenters of various backgrounds and our avid users to present their latest works and exchange opinions with all of our guests. We will also demonstrate many of our new products and solutions, as well as announcing the printed works of "VR Road Engineering" and "Environmental Assessment through VR Cloud" (both in Japanese), which are newly published by Forum 8 Publishing.

We sincerely thank you for your attendance under a busy schedule.

Yuji Ito, CEO of FORUM8 Co. Ltd.,

"Dawning of a new National resilience, a



11/17 Tue.

Eve

17:30-21:00

Shinagawa Prince Hotel Club eX

Eve of FORUM8 Design Festival

P.4

Projection Mapping & Illumination via The Latest State of the Arts

FORUM8 users and visitors from overseas will be very much welcomed! A dinner buffet modeled after Japanese Festival food stalls will be held.



11/16 Mon.-17 Tue.

Seminar that will be taken place just before the festival

UC-win/Road expert Training seminar

P.4

11/18 Wed.

Day1

10:00 -12:00

FORUM8 Showroom

The 16th UC-win/Road Conference Driving Simulator Sessions Demonstration

P.6

13:00 -17:40

INTERCITY Hall

The 16th UC-win/Road Conference Driving Simulator Sessions

P.8

FORUM8 Seminar room

The 9th Design Conference Administration Sessions

P.9

Technical support

18:00 -21:00

Trattoria-italia Shinagawa

Networking Party

P.9

11/20 Fri.

9:30 -12:00

INTERCITY Hall

The 9th Design Conference Analysis and Seismic Sessions Award C

13:00 -17:30

INTERCITY Hall

The 9th Design Conference Analysis and Seismic Sessions CIM Sessions

P.16

FORUM8 Seminar room

The 16th UC-win/Road Conference The 8th International VR Symp The 1st State of the Art Technologies in I



# business era through real-time 3D VR technologies! autonomous driving, BIM/CIM, cloud computing...”

the Era of Virtual Reality... FORUM8



## 11/19 Thu.

Day2

9:30  
-12:00

INTERCITY Hall

The 16th UC-win/Road Conference General Sessions

P.10

Award Ceremony for the 14th 3DVR Simulation Contest on Cloud

13:00  
-17:40

INTERCITY Hall

The 9th Design Conference  
IM&VR Sessions

P.10

Award ceremony for the 5th VDWCup / 3rd CPWC  
Junior 3D VR Seminar Award Ceremony

FORUM8 Seminar room

The 9th Design Conference  
Geotechnical Sessions

P.14

Technical support

17:40  
-19:40

INTERCITY Hall foyer

Networking Party  
and Book Launch Party

P.14

## 11/21 Sat.

Tour

Golf (Fujinomori Golf Club)



P.5

Sightseeing (Mt. Fuji, Hakone)



P.5

Day3

Award Ceremony for The 2nd National Resilience Design Award

P.16

FORUM8 Presentation room

The 9th Design Conference  
Water Works Sessions

P.19

Technical support

Forum  
Expression session

P.20

Present



Lunch coupon



FORUM8 Original mouse pad 2015  
Original ECO Bag, Original pen  
FORUM8 Original Book card ¥500  
Lunch coupon

## Projection Mapping & Illumination via The Latest Arts Technology!

FORUM8 users and visitors from overseas will be very much welcomed! A dinner buffet modeled after Japanese Festival food stalls will be held. Food items such as sandwiches, dim sum, steak, cotton candy, soft serve ice cream, and snacks, will all be served with a Japanese-styled twist.



11/17 Tue.

Venue : Shinagawa Prince Hotel Club eX

Starts at 18:00 - 21:00



### DJ ONI

DJ Oni travels and has performed in London, Tokyo, Myanmar and India. He has also worked on numerous huge events for both embassies and commercial patrons. The short film "ENSEMBLE", of which he worked as a musical director, was shown and well-received at the Cannes International Film Festival 2015, and nominated at the Brooklyn International Film Festival and the Bucheon International Film Festival. His first and recent collaboration work with Namy and "Piano with Headphone" gave birth to an album released in April 2015, which successfully made its way into the US Billboard Buzz Chart.



Digital drawing event will also be held! No blank!

Seminar that will be taken place just before the festival

Expert training seminar FORUM8 Seminar room

Free

11/16 Mon. -17 Tue.



### UC-win/Road Expert training seminar for an agency/consultant

UC-win/Road Expert training seminar will be held for agencies which sell UC-win/Road and consultants who suggest VR business using UC-win/Road.

We prepared "UC-win/Road introduction strategy program" which you can learn knowledge and technique, which is need to get the targeted company to innovate UC-win/Road. We advance this seminar covering all the contents of the sales and techniques from approach to consulting, install and follow-up with practices.

Lastly, you'll take an authorization examination, and the passers will be certified as UC-win/Road experts.

### Schedule

11/16 Mon. 13:00 - 17:30

- 13:00~13:30 Basic knowledge of UC-win/RoadVR
- 13:30~15:30 Practical use of sales tools
- 15:40~17:30 Process for innovation



11/17 Tue. 9:30 - 17:30

- 9:30~14:30 UC-win/Road operational practice Bases
  - The basic flow of data input (terrain, roads, arrange 3D models)
  - Simulation (driving, flying, walking)
  - Traffic flow, traffic signal control
  - Environment setting (weather, time, road surface, switch landscape etc.)
- 14:40~16:00 Link and expansion
- 16:15~17:30 Authorization examination

### You will get some memorials after taking FORUM8 UC-win/Road Expert Training Test!

- Certification card, award certificate, FORUM8's special mouse and mouse pad



Application

<http://www.forum8.co.jp/english/seminar-e.htm>



Our developers will answer your question you may have on products' operation.  
\*Prior registration is required.

**11/18 Wed.**

**FEM Analysis series**  
Engineer's Studio®  
Geotechnical Analysis series  
FEMLEEG

**CIM&BIM Hands-on Experience Area**

**11/19 Thu.**

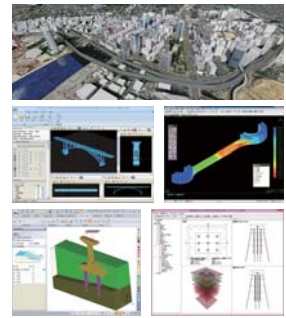
**UC-1 series**  
UC-1 series  
UC-1 Engineer suite  
UC-win/UC-1 Development service

**CIM&BIM Hands-on Experience Area**

**11/20 Fri.**

**UC-win/Road関連**  
UC-win/Road VR-Cloud®  
UC-win/Road Support system  
3D/VR engineering service

**ICIM&BIM Hands-on Experience Area**



**Demonstration** FORUM8 Showroom/INTERCITY Hall foyer

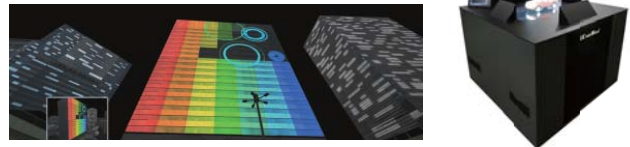
**11/18 Wed.-11/19 Thu.**

FORUM8's various kinds of systems including Driving Simulator will be demonstrated. Visitors can come to this showroom all day during the 8th Design Festival 2015.



**11/20 Fri.**

During the last night of Design Festival 2015, the projection mapping performance exhibited during the Festival Eve on the first day will be recreated under a miniaturized setting via 3D printed miniature models in the FORUM 8 Tokyo HQ Showroom.



**Special golf competition and Mt. Fuji, Hakone and Gotenba tour for Premium Users of FORUM8 products**

Premium users of FORUM8 products are invited.

**11/21 Sat.**

**Golf** Design Festival 2015  
— Golf Competition for FPB Premium users

You will be able to see Mt. Fuji from each hole on which the natural terrain is used as it is. Everyone from beginner to experienced golfers can have a good time!

Venue : Fujinomori Golf Club Starts at 9:07 <http://fujinomori.jp/>  
Gathering Spot : In front of Shinagawa Intercity (You can either choose to be picked up by the bus and meet us on the spot.)  
Candidates : Premium users of FORUM8 products as of August and September, 2015 Gold Premium users of FORUM8 products and visits for Day1, Day2 and Day3 (1 member for 1 company and simultaneous application is not possible.) (up to 1 user per company. (If there are many applicants, a lottery will be held to choose the lucky ones))

**Sightseeing** One-day sightseeing tour around Mt. Fuji, Hakone and shopping at Gotenba Premium Outlets

A tour around Mt. Fuji, preserved as one of the World Heritages, and Hakone which has a lot of scenic spots including Ashinoko etc. and the best season for beautiful colored leaves.

Time : Leave Tokyo station at 7:07 / Arrive at 15:10  
Candidates : Premium users of FORUM8 products as of August and September, 2015 Gold Premium users of FORUM8 products and visits for Day1, Day2 and Day3 (1 member for 1 company and simultaneous application is not possible.) (up to 1 user per company. (If there are many applicants, a lottery will be held to choose the lucky ones))

**Application** Please tell your contact person of FORUM8 staff if you join each of these.

\*You can either choose the tour or the golf competition but not both.  
\*FORUM8 will pay the cost of tour itself. However, applicants are responsible for the accommodation fee and travel fee to the gathering spot.

Day 1

11/18 Wed.

# The 16th VR Conference



## The 16th UC-win/Road Conference Driving Simulator Sessions

We will host a number of demonstrations in our head office showroom in the morning. In the afternoon there will be a series of lectures and presentations based on our latest VR systems and technology including ITS in the automotive industry.

### FORUM8 Showroom

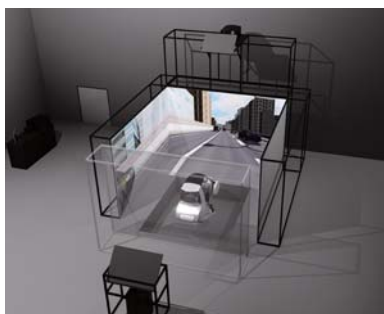
|             |  |
|-------------|--|
| 10:00-12:00 | <b>Exhibit Orientation</b><br><b>[Showing of FORUM8's systems and demonstration at showroom]</b> |
|-------------|--|



## System Solution Cases

### Vehicular Dynamics Research & Evaluation System -High-Precision Driving Simulator

Nagoya University National Innovation Complex Delivered: June 2015



● Overall appearance

### World's First 4K Five-Screen 3D Stereoscopic CAVE Driving Simulator

\* (As of June 2015, no examples of large-scale 5-screen CAVE system with driving cockpit and motion platform is known to exist)

Through its high-luminance high-definition monitors, realistic cockpit module and highly responsive motion platform, this driving simulator is tailored-made for researches of human perception, traits, behaviours, and vehicle dynamics. Powered by the interactive real-time virtual reality software UC-win/Road, this simulator can be quickly adapted for many different research and simulation purposes through only simple PC commands.



### Driving Simulator for Seniors

Appeared in the NHK TV Program "Close-up Gendai" in July 8, 2014

Exhibited



Due to the increasing risks of traffic accidents and incidents involving seniors in Japan, Professor Nakano of Meijo University co-developed with Forum 8 this senior driving simulator to evaluate driving skills and cognitive skills among seniors. The evaluation results can be reviewed and used for further research or training program designs.

Special Lecture 13:00-14:00

#### "A Simulator that Evaluates Senior Driving Capabilities - Past Data & Future Outlook"

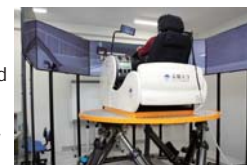
- Further Research Topics Based on the Findings Collected to Date -

Tomoaki Nakano, Professor, Dept of Information Engineering, Faculty of Science and Technology, Meijo University

### Driving Simulator (6DOF)

Graduate School of Engineering, Kyoto University. Delivered April 2012.

With full access to all UC-win/Road features, researches at Kyoto University customized the driving simulator to perform coordination and customization with external devices. By using NIRS (near-infrared spectroscopy) to detect and analyze changes in blood flow in human brains, Professor Taniguchi and his colleagues try to examine the relationship between brain activity and driving behaviours, road structures and shapes, and traffic conditions.



Special Lecture 15:00-15:50

#### "Urban Logistics in the ICT Age and the Latest Research on the Blood Flow Activities in Human Brains Against Driving Workload"

- Urban logistics management in the information age and the incorporation of the emerging field of cerebral blood flow dynamics into driving workload and risk factors researches -

Eiichi Taniguchi, Professor, Kyoto University Graduate School of Engineering Department or Urban Management

### 8DOF Traffic Safety Simulator

Research Institute of Highway Ministry of Transport. Delivered February, 2014.



8-DOF Driving Simulator with realistic driving vehicle dynamics model. Through UC-win/Road's Cluster functions, this system has a 360 degrees projection screen, stereo speakers, and vibrative devices to offer as much realism as possible compared to real cars. Currently, the simulator is also fitted with traffic flow simulator, vehicular dynamics model, and eye tracking devices.

### Human-Vehicle-Traffic Flow Interoperable Driving Simulation System for Interactive Information Exchange

Kyusyu Univeristy. Delivered March, 2012.



This is a 6-DOF motion-capable driving simulator up to 0.7G acceleration for complex researches. Fitted with traffic flow simulator, vehicle dynamics simulator, and HILS/ECU emulator, this is a highly advanced system suited for many next-generation research projects.



# Exhibited Systems



## Safety Driving Simulator

A driving simulator for driving schools. This (uncertified) driving simulator is made to comply to the criteria settings required by driving schools. Through VR technologies, this is system is as close to reality as possible.



## Experience Simulator

Built for the purpose of exhibiting the latest ITS concepts. Experience ITS technology concepts through this 6-DOF, motion-capable driving simulator. Try this simulator to experience futuristic advanced driver assistance system (ADAS) and ITS technologies.



## Compact Driving Simulator

Precise simulator covering a wide range of simulation needs. Fully controllable driving environment for repeated runs under a specific condition. This simulator is widely used for vehicular system development, ITS researches, and interaction analysis between driver, cars traffic, and roads.



## 7ch Driving Simulator

Driving simulator for complex researches. Achieving a wide angle of visibility through a 7ch monitor configuration, this simulator replicates the real world situation more than most other options.



## SimCraft Simulator

Relaxistic 3D VR experience. Linked with UC-win/Road, this simulator provides realistic and high-quality immersive driving experience through its APEX GTC 3DOF motion platform.



## SENSO Driving Simulator

High-precision UC-win/Road steering control / Autonomous driving. With SENSO-Wheel equipped, UC-win/Road can offer users the most responsive and realistic steering control ever in a simulated environment.



## Blue Tiger Flight Simulator

allows you to experience flying through motion. This system carries 2DOF motion and the controller for flight simulator.



## Earthquake Simulation Service

By assigning vectored parameters such as velocity and acceleration to a base model, we can simulate and visualize how the object would shake according to the earthquake data. All model objects would then also move or fall accordingly.



## VR-Cloud®

VR-Cloud® is a consensus building solution which uses 3D and VR on a cloud server. As long as you are connected to the Internet, you can take control of VR space even on a thin client.



## Oculus Rift DK2

Head mounted display which enables head tracking via built-in sensor and allows you to output 3D video with a wide field of view at an affordable price. The sensor data of Oculus Rift is obtained and the viewpoint within UC-win/Road is tracked according to the head of users.

## Train simulator



## Ship Handling Simulator



## Wind Simulator



## Projection Mapping Table



## UAV (Automated Flying Robot)



## BCP Simulator



## cycleStreet City Edition



## VICS Driving Simulator



## 6K Multi-Cluster Digital Signage System



## 3D models (3D Printing Service)



## Ultra Micro Data Center



## 3D Stereo



# The 16th VR Conference

## The 16th UC-win/Road Conference Driving Simulator Sessions



### INTERCITY Hall

|             |  |
|-------------|--|
| 13:00-14:00 | <b>Special Lecture 1</b><br><b>"A Simulator that Evaluates the Driving Capabilities of Seniors"</b><br>- The research findings to date and future research tasks -<br>Tomoaki Nakano, Professor, Dept of Information Engineering,<br>Faculty of Science and Technology, Meijo University   |
| 14:00-14:50 | <b>Special Lecture 2</b><br><b>"The latest trends in the model-based development process"</b><br>- The latest information on the development environment for HILs testing<br>and the possibility of using systems linked with a VR environment -<br>Takashi Miyano, President of dSPACE Japan.   |
| 15:00-15:50 | <b>Special Lecture 3</b><br><b>"City Logistics in the ICT age and the latest research on the dynamics of blood flow in drivers' brains"</b><br>- City logistics management in the information age and<br>the research into drivers' 'load' and its effect in the risk of road accidents,<br>taking into account the dynamics of blood flow in drivers' brains -<br>Eiichi Taniguchi Professor, Kyoto University Graduate School of<br>Engineering Department or Urban Management |
| 15:50-16:50 | <b>Special Lecture 4</b><br><b>"The forefront of vehicle motion simulation - CarSim, TruckSim, BikeSim"</b><br>Eiji Takita, President of Virtual Mechanics Corporation (VMC).<br><b>"The possibility of new simulators using the physical computing engine "AgX Dynamics"</b><br>Akira Nagahara, GM Sales & Marketing, MotionSim Department, VMC Inc.  |
| 16:50-17:20 | Presentation 1<br><b>"The latest functions of UC-win/Road Ver.11 and the future software development roadmap"</b><br>Pencreach Yoann ,FORUM8 Co., Ltd.,  |
| 17:20-17:40 | Presentation 2<br><b>"Development example of FORUM8's simulator systems"</b><br>Katsumi Matsuda, FORUM8 Co., Ltd.,   |

**Special Lecture 1 13:00-14:00**
**"A Simulator that Evaluates the Driving Capabilities of Seniors"**

- The research findings to date and future research tasks -

 Tomoaki Nakano, Professor . Dept of Information Engineering,  
 Faculty of Science and Technology, Meijo University


Professor Nakano will discuss the trends in vehicle research and ITS development as well as the use of Driving Simulators (DS), he will also highlight the use of FORUM8's UC-win/Road in various research &amp; development projects. In addition, he will introduce DS developments including driving diagnosis for seniors, with a view to reducing traffic accidents and also introduce his work to improve their driving ability. Furthermore, an interesting experiment about simulator sickness will also be presented.

**Profile** : Mr. Nakano joined Toyota Central R&D Labs., Inc. in 1982. He has been working at Meijo University since 1999 studying senior drivers' abilities and cognitive features.

**Presentation 1 16:50-17:20**
**"The latest functions of UC-win/Road Ver.11 and the future software development roadmap"**

 Pencreach Yoann  
 FORUM8 Co., Ltd. Technical Manager of the VR Development Group

The new functions of the latest version of UC-win/Road will be revealed and last year's developments will be explained. The way in which the activities of the past year affected the development roadmap will also be presented.

**Special Lecture 2 14:00-14:50**
**"The latest trends in the model-based development process"**

- The latest information on the development environment for HILs testing and the possibility of using systems linked with a VR environment -

Takashi Miyano , President of dSPACE Japan.



In today's fast moving and highly competitive automotive electronics industry, new innovative systems and software need to be developed quickly and reliably. One solution is to use model-based development. This is particularly important in the development of large-scale and complicated systems such as Hybrid Vehicles and Advanced Driving Assistant Systems (ADAS) etc. He will introduce the latest trends in the process for model-based development and the possibility of using systems linked with VR (Virtual Reality) environments.

**Profile** : Mr. Miyano joined Japanese / foreign automotive parts manufacturers and has been engaged in developing control units and simulation etc. since 1980. He joined dSPACE Japan in 2007.

**Special Lecture 3 15:00-15:50**
**"City Logistics in the ICT age and the latest research on the dynamics of blood flow in drivers' brains"**

 - City logistics management in the information age  
 and the research into drivers' 'load' and its effect  
 in the risk of road accidents, taking into account  
 the dynamics of blood flow in drivers' brains -

 Eiichi Taniguchi, Professor, Kyoto University Graduate School  
 of Engineering Department or Urban Management


In this information age, it is now possible to get big data such as that from delivery trucks etc. at a lower cost. He will talk about the optimization of plans to assign trucks and delivery by using this data and how to manage the city logistics taking stakeholders' behavior into consideration. Furthermore he will introduce his research into the measurement of blood flow in the human brain using a driving simulator and NIRS (Near Infra-Red Spectroscopy) as well as drivers' driving 'loads' and the subsequent risk of accidents.

**Profile** : Mr. Taniguchi has studied effective and environment-friendly city logistics, multi agent modeling taking each stakeholders' behavior into consideration, dynamics of blood flow in human brains via NIRS and drivers' driving load etc.

**Special Lecture 4 15:50-16:50**
**"The forefront of vehicle motion simulation - CarSim, TruckSim, BikeSim"**

 Eiji Takita  
 President of Virtual Mechanics Corporation (VMC).


The use of software for vehicle motion simulation is a rapidly growing factor in the process of vehicle development. The vehicle motion models used in driving simulators have typically been applied to the unique needs of customers. The opportunities to use driving simulators for general vehicle development will undoubtedly increase in the future. In his lecture, he will introduce the history of vehicle motion simulation software, its evolution and future roles.

**Profile** : Mr. Takita is engaged in the sale and support of CarSim vehicle motion simulation software, and is the president of Virtual Mechanics Corporation.

**"The possibility of new simulators using the physical computing engine "AgX Dynamics"**

 Akira Nagahara  
 GM Sales & Marketing, MotionSim Department, VMC Inc.


Physical computing engines which influences the reality of simulation software. He will introduce the latest physical engine "AgX Dynamics" which allows you to compute the movements of restriction and friction etc. between a large number of different objects. For example; this tool enables you to run a simulation in an environment where previously simulation was too difficult to do due the ground deformation and soil excavation. Therefore it is possible to use in a variety of different application fields.

**Profile** : Mr. Nagahara is responsible for sales and marketing in VMC Inc.

**Presentation 2 17:20-17:40**
**"Development example of FORUM8's simulator systems"**

 Katsumi Matsuda  
 FORUM8 Co., Ltd. Executive officer, Manager of System Sales Group

Examples of different simulator structures for vehicle development and for showcasing at exhibitions using the basic functions of UC-win/Road. This presentation will also include details of the world's first CAVE driving simulator that combines a large 5-screened 4K 3D display (Nagoya University), ADAS, ITS etc.



# The 9th Design Conference

Design  
Analysis

## The 9th Design Conference Administration Sessions

From this year, "Administration Sessions" will be held under the theme of the latest information related to tax, accounting, labor, legal affairs. We will invite the specialists who work in FORUM8.

### FORUM8 Seminar room

|             |   |
|-------------|---|
| 13:00-14:00 | <p><b>Special Lecture 1</b></p> <p><b>"We would like to know! My Number (Individual Number) / Stress Check"</b></p> <p>- The gist about My Number which is about to be introduced and the Stress Check Test which will be compulsory in December in Japan will be introduced.-<br/>Masanori Koizumi, Labour and Social Security Attorney Office, Koizumi Office</p> |
| 14:00-14:50 | <p><b>Special Lecture 2</b></p> <p><b>"Strategic use of M&amp;A"</b></p> <p>- The method to avoid the opportunity loss caused by a preconceived idea and to use M&amp;A effectively and strategically -<br/>Yasunari Kujime, Certified Public Accountant, Kujime Accounting Office</p>  |
| 15:00-15:50 | <p><b>Special Lecture 3</b></p> <p><b>"Revision of the employee's invention system"</b></p> <p>- Who's right to obtain the patent? -<br/>Eiji Ogawa<br/>Patent Attorney, Nagato &amp; Partners Patent &amp; Trademark Attorney Firm</p>   |
| 15:50-16:40 | <p><b>Special Lecture 4</b></p> <p><b>"The influence for companies and individuals exerted by the first amendment of the Civil Code in 120 years"</b></p> <p>- Explanation of Civil Code amendment applied to society and economic changes<br/>Kazuhiro Nakamoto, Tomohito Ueda, Lawyer, Nakamoto &amp; Partners</p>  |
| 16:40-17:10 | <p><b>Presentation 1</b></p> <p><b>"The latest function of Groupweb, FORUM8's core corporate system"</b></p> <p>-The new feature for FORUM8's management system of information, sales and accounting and also the stress check test will be introduced-<br/>Toshinari Takatani, FORUM8 Co., Ltd.</p>  |

### Special Lecture 1 13:00-14:00

#### "We would like to know! My Number (Individual Number) / Stress Check"

- The gist about My Number which is about to be introduced and the Stress Check Test which will be compulsory in December in Japan will be introduced. -

Masanori Koizumi  
Labour and Social Security Attorney Office, Koizumi Office



My Number (Individual Number): What is going to be changed by introducing My Number System and what do companies have to pay attention to? What measures do companies have to handle? About how to avoid the risk, security measurements, laws and regulations will be introduced.

Stress Check Test: What is Stress Check Test? About the procedure to introduce stress check test system (Put in place the implementation system → Stress Check Test → Interview → Analysis and Evaluation)

**Profile:** Mr. Koizumi is a head of Labour and Social Security Attorney Office, Koizumi Office. Consulting how to make a good work environment where employees can actively work. Author of "True workplace trouble ever" (published by RodoShimbun), "Social-security book which makes you benefit from" (published by Chiteki Ikikata Bunko), the other media, seminars, lectures etc.

### Special Lecture 2 14:00-14:50

#### "Strategic use of M&A"

- The method to avoid the opportunity loss caused by a preconceived idea and to use M&A effectively and strategically -

Yasunari Kujime  
Certified Public Accountant, Kujime Accounting Office



The environment surrounding M&A has been differed greatly from the one of the past and we have to consider that M&A is inextricable for future company management. Considering like that would lead to get a huge business chance. In this lecture, he will introduce how to avoid the opportunity loss caused by a preconceived idea and how effective M&A is for the company management.

**Profile:** Mr. Yasunari Kumeji is the chief of Certified Public Accountant, Kujime Accounting Office, a member of M&A senior expert M&A national network

### Special Lecture 3 15:00-15:50

#### "Revision of the employee's invention system"

- Who's right to obtain the patent? -

Eiji Ogawa, Patent Attorney,  
Nagato & Partners Patent & Trademark Attorney Firm



He will firstly explain about the overview of the patent system. Then, what is the right to obtain the patent, what kind of system the employee's invention system is, how is the employee's invention system going to be changed due to the partial revision of patent law 2015 will be explain so that the general people will understand how to obtain a patent.

**Profile:** Mr. Eiji Ogawa, Patent Attorney, Nagato & Partners Patent & Trademark Attorney Firm

### Special Lecture 4 15:50-16:40

#### "The influence for companies and individuals exerted by the first amendment of the Civil Code in 120 years"

- Explanation of Civil Code amendment applied to society and economic changes -

Kazuhiro Nakamoto, Tomohito Ueda  
Lawyer, Nakamoto & Partners



He will introduce details of the Civil Code amendment which has been delivered during the ordinary session this year. This amendment will be the amendment of fundamental Civil Code supporting the foundation of society and therefore is on the center of attention for newspaper coverage. In this lecture, he will also explain about "How the practical business is going to be changed?" as well as the important topics which not only companies should know but also the general public should also understand.

**Profile:** Wayo Nakamoto: Chief of lawyer, registered since 1981, director of Osaka Bar Association and vice president of Japan Federation of Bar Associations in 2011. Norifumi Ueda: Lawyer, registered since 2010, had a training at a law office in Shanghai and Guangzhou, Chin in from 2012 to 2013.

### Presentation 1 16:40-17:10

#### "The latest function of Groupweb, FORUM8's core corporate system"

- The new feature for FORUM8's management system of information, sales and accounting and also the stress check test will be introduced -

Toshinari Takatani, FORUM8 Co., Ltd. Assistant Leader of Osaka NIM Team

FORUM8's self-developed products "GSS" which is a core corporate system and GroupWeb, and total CRM (Customer Relationship Management) due to the self-developed accounting control system will be introduced. Stress Check Test System which will be embedded in GSS and the mental health care by introducing it will also be introduced.

### 13:15-17:00 Support Sessions (Presentation room)

**Technical Support FEM Analysis Series**  
**Engineer's Studio®/Geotechnical/FEMLEEG**

**IM&VRHands-on Experience Area CIM/BIM Solution**

## 11/18 Wed. Networking Party

18:00-21:00 Trattoria-italia Shinagawa

A networking party will be held to serve as a place for exchanging information or opening new business opportunities. We plan to invite all our presenters and guest session speakers to this networking party.

# The 16th VR Conference



## The 16th UC-win/Road Conference General sessions

A world-renowned expert in Evacuation Analysis and the author of "Behavior - Security - Culture (BeSeCu)", Professor Galea of University of Greenwich once again joins us and will present his latest use cases of the EXODUS Evacuation Analysis software. In Day 2, we will also host the Award Ceremony of the 14th 3D VR Simulation Contest on Cloud, introducing the many ingenious works of many of our users from varied industrial background.

### INTERCITY Hall

|             |  |
|-------------|--|
| 9:30-10:30  | <b>Special Lecture 1</b><br><b>"Evacuation Analysis of a Large-Scale Event"</b><br>- Using 2020 Tokyo Olympics as an Example of Evacuation Proposals -<br>Edwin R. Galea, Professor, University of Greenwich |
| 10:30-12:00 | <b>Award Ceremony</b><br><b>Award Ceremony for the 14th 3DVR Simulation Contest on Cloud</b><br>Host : Ryuta Ieiri   |

### Special Lecture 1 9:30-10:30

#### "Evacuation Analysis of a Large-Scale Event"

- Using 2020 Tokyo Olympics  
as an Example of Evacuation Proposals -

Edwin R. Galea, Professor  
University of Greenwich



The "EXODUS" software developed by Professor Galea has been a popular choice across many researchers and consultants for its crowd flow and evacuation analysis features. Aimed at the upcoming 2020 Tokyo Olympics, Professor Galea wishes to take his work one step further. He will introduce BIM use cases and researches that demonstrate the feasibility of simulating the evacuation of large-scale buildings, such as stadiums, while taking the neighbouring environment into account. Furthermore, Professor Galea will also introduce his latest works on SMARTFIRE, a heat and smoke simulation software based on CFD (computational fluid dynamics) methods.

**Profile :** Professor Galea is the founder of the Fire Safety Engineering Group (FSEG) of the University of Greenwich. This is the place where the highly-accurate evacuation analysis software EXODUS was developed. It is also a major source of many prominent papers and published works regarding evacuation analysis, while also starring numerous times in major companies such as BBC or ABC.

# The 9th Design Conference

## Design Analysis

## The 9th Design Conference IM&VR Sessions

This year will be the 14th 3D VR Simulation Contest on Cloud. As usual, the judges would provide and perform their expertly reviews over the various submitted BIM proposals to prepare for the Award Ceremony. The Contest has been, and will continue on, inviting companies of various industries to exchange opinions and showcase their works over the use of 3DVR technologies. Each year we proudly invite guests from, but not limited to, civil/architecture engineering, urban/traffic planning, environmental engineering, hazard safety, automobile, and railway corporations.

### INTERCITY Hall

|             |  |
|-------------|--|
| 13:15-14:50 | <b>Open Judgment and Award Ceremony</b><br><b>"Final judgment for the 5th VDWC / 3rd CPWC"</b><br>Host : Ryuta Ieiri   |
| 15:00-16:30 | <b>Special Lecture 2</b><br><b>"Self-Assessment for Prompting the Greenification of the Economy and Society"</b><br>Syuichi Sakata, Environmental Impact Analysis Team, Department of Environmental Policy, Japan Ministry of Environment<br><b>Special Lecture 3</b><br><b>"Utilizing 3D VR for Self-Environmental Assessment"</b><br>Hiroo Kasagi, CEO, NPO Workshop for Sustainable Community |
| 16:30-17:40 | <b>Award Ceremony</b><br><b>Award Ceremony for the 5th VDWC / 3rd CPWC Junior 3D VR Seminar Award Ceremony</b><br>Chairman : Yuji Abe/Host : Ryuta Ieiri   |

### Special Lecture 2 15:00-16:30

#### "Self-Assessment for Prompting the Greenification of the Economy and Society"

Syuichi Sakata  
Environmental Impact Analysis Team, Department of  
Environmental Policy, Japan Ministry of Environment



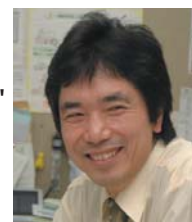
The Japanese Government 4th Basic Environment Plan (Passed April, 2012) has placed the goal of sustainable environment at top priority, and has initiated a series of vigorous movements to realize the theme of "The Greenification of the Japanese Economy & Society Through Green Innovation". Specifically as a first step, this would require a general proliferation of environmental awareness even among the masses and enterprises who are not subject to environmental pollution abatements. Hence, the Japanese Ministry of Environment has constantly been publishing and distributing relevant booklets and works since June 2015. Mr. Sakata will introduce existing examples with the goal of them serving as a good reference for the numerous contractors and architectural design firms.

**Profile :** Mr. Sakata joined the Yamaguchi-Prefecture Office in 2010 and has worked as an engineer under the Department of Environmental Policy. He is transferred to the Ministry of Environment in 2015 and has been working as a member of the Environmental Impact Analysis Team, formulating numerous assessment criteria and standards.

### Special Lecture 3 15:00-16:30

#### "Utilizing 3D VR for Self-Environmental Assessment"

Hiroo Kasagi  
CEO, NPO Workshop for Sustainable Community



While BIM and CIM is not too uncommon today for project designs, few has attempted to use BIM and CIM to communicate with the local residents and extract their opinions. In addition, most environmental assessment works remain in 2D documents which lack information transparency due to discrepancy in project or expertise knowledge. Through the use of 3D VR for simple self-assessments, Mr. Kasagi will introduce numerous examples of how these technologies can help communicating a better environmental awareness and assist companies in formulating business environmental strategies. Mr. Kasagi will also introduce the self-environment assessment assistance web site and related software, a joint effort between Mr. Kasagi and FORUM 8 Co. Ltd.

**Profile :** Mr. Kasagi is the current CEO of the NPO Workshop for Sustainable Community, Chancellor of Environment Assessment Committee, Part-Time Instructor at the Nagano University. He was awarded with the 2013 Global Warming Prevention Ambassador Award and the Sano-City Tanaka Shozo Design Award (The Grand Prize) in 2014.

## The Self-environment Assessment Assistance Web Site

This is a tool to voluntarily understand the environmental influence for the business which is not the target for Japanese Environmental Impact Assessment Law or even Japanese Code as CSR (Corporate Social Responsibility) of the providers and then to review the better business through communicating with residents.

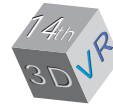
1. Huge buildings
2. Power plants
3. Changing land
4. Plants and research institutes
5. Roads and bridges
6. Events



This system was developed by the commission from NPO Chiikizukuri Kobo in 2014.



# The 14th 3DVR Simulation Contest



## Award Ceremony for the 14th 3DVR Simulation Contest on Cloud

This year will be the 14th 3D VR Simulation Contest on Cloud. As usual, the judges would provide and perform their expertly reviews over the various submitted BIM proposals to prepare for the Award Ceremony. The Contest has been, and will continue on, inviting companies of various industries to exchange opinions and showcase their works over the use of 3DVR technologies. Each year we proudly invite guests from, but not limited to, civil/architecture engineering, urban/traffic planning, environmental engineering, hazard safety, automobile, and railway corporations.

### Profile of Judges



**Mr. Fumio Seki**  
Chief of Judge  
Professor of Engineering department,  
Hihon University

After graduating the department of science and engineering, Nihon University, he joined Design Planning office for civil design of Taisei Corporation and has been engaged in design etc. for road structure, river, harbor and lecture etc. Appointed in the current position since 2011.



**Mr. Kasagi Hiroo**  
Representative of NPO  
Chiikizukuri Kobo

Director of Japan Society for Impact Assessment, part-time instructor of Nagano University, CEO of Kizakiko Hot Spring Development Co., Ltd. Councilor of Omachi Kita high school. Author of some books. Won the prize of Minister for the Environment for his activity of global warming in 2005.



**Tatsuoki Inagaki**  
Director of Pavement & Road How-To Way Technology Association

Holding a post of information technology manager Road Management Technology Center and currently taking on a director of Pavement & Road How-To Way Technology Association. Author of some books about pavement engineering and road engineering. He is engaged in improvement of technology of road and pavement and promotion of research development.

### Flow of Contest

#### 10/9 Fri. Deadline for works submission

- Deliverable**
- VR data created via UC-win/Road (script is required to be created and the work is needed to be stored in media such as CD-ROM and DVD etc.)
  - Overview of VR data (up to 150 words) and how to operate the data.
- Where to deliver the data**
- Please tell your contact person of FORUM8 staff and send it to him.



#### 10/16 Fri.

#### Meeting for selecting nomination works

#### 11/7 Sat. – 11/15 Sun. Period of public voting on cloud

URL: [VRcon.forum8.co.jp](http://VRcon.forum8.co.jp)



Browse and operate VR data

Public voting



Access  
<http://vrcon.forum8.jp/index-e.htm>  
and click the banner to join voting!

#### Reward to all our valuable users who voted on cloud

Reward to all our valuable users who voted on cloud  
We will grant 1000 FPB points to all users that viewed and voted for online their favorite VR data, which are submitted for the contest's evaluation, shown on the webpage that can be accessed from their User Information Page!



#### 11/17 Tue. Examining Meeting

**Meeting for selecting nomination works:** The judgment will be performed by 70% of public voting, 30% of voting from judging committee based on the ranking point and ranking point for special awards.

#### 11/19 Thu. Award Ceremony of the 14th 3DVR Simulation Contest on Cloud



### Awards / Prizes

#### Grand Prix

Certificate / trophy /  
High performance notebook computer



High performance notebook computer  
(Lenovo ThinkPad T450)  
Book card ¥25,000

#### Excellence Award

Certificate / High performance  
notebook computer



High performance notebook computer  
(Lenovo ThinkPad T440p)  
Book card ¥10,000

#### Special Awards

**Idea Award / Essence Award**  
Certificate / Tablet



Sony Xperia  
10.1 inch Tablet  
(Xperia Z4 Tablet SGP712JP)  
Book card ¥2,500

#### Judge Award

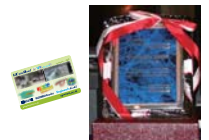
Certificate /  
Digital still camera



Sony Cyber-shot  
Digital still camera  
(DSC-RX100)  
Book card ¥2,500

#### Nominate Award

Certificate



セミクリスタル盾、東京宿泊ご招待  
Book card ¥2,500



The 13th  
3D-VR Simulation Contest on Cloud

### The 13th Award Works

#### GRAND PRIX

**Cooperative  
ITS Driving Simulator**  
TOYOTA MOTOR  
CORPORATION



#### EXCELLENCE AWARD

**Simulation for environmental  
upgrading around  
Higashi Takase river**  
Fushimi Technical  
High School in Kyoto



# The 5th VDWC / The 3rd CPWC



## The 5th Virtual Design World Cup The 3rd Cloud Programming World Cup Results Announcement and Award Ceremony

During this time we will host the final judging and the Award Ceremony for both the 5th VDWC and 3rd CPWC student contests. The VDWC is a contest that makes use of advanced BIM/CIM and VR software to design and compete between student groups for building or construction engineering projects over a cloud server. The CPWC is a cloud-based programming contest by utilizing numerous software development kits. In addition to the above, this year we have opened a new Award Ceremony for a new contest aimed at elementary and secondary school students. The new contest involves our newly hosted Junior Software Seminar during the summer vacation and the projects created during then by our junior designers.

Virtual Design World Cup Executive Committee

# Virtual Design World Cup

THE 5TH STUDENT BIM & VR DESIGN CONTEST  
ON CLOUD SERVICES

Theme2015 "Redevelopment of Keelung Station Area in Taiwan"

**B.I.M NOW !!**

With a space informatization as well as spatialized information, BIM should become a new form of technology to realize sustainable future in cities worldwide.  
Who will create a city that no one has ever witnessed before?



11/19 Thu. Results and Award Presentation and Final Judgment The 5th VDWC / The 3rd Poster session (Shinagawa)



### Prix

**World cup prize : 1** (Award 300,000 yen, world cup)

**Excellent prize : 2** (Award 100,000 yen, excellent prize cup)

**Judge's special prize : 5**

(Award 50,000 yen, judge's special prize)

**Nominee's prize** (Award certificate, a panel of their work, memorials, FORUM8 original gift)



**Prof. Yasushi Ikeda**  
Chief of executive committee of VDWC  
Graduate School of Keio University  
Representative of IKDS



**Mr. Yoshihisa Hanamura**  
NPO Civil Machizukuri Station



**Associate Prof. Kostas Terzidis**  
Harvard University, USA



**Mr. DAVID TSENG**  
National Chiao Tung University, Taiwan



**Mr. Patrick Janssen**  
National University of Singapore



Keelung Station Area

4/9 Thu.-  
6/19 Fri.

Registration  
Period

6/29 Mon. 1st round presentation  
The first round of VDWC and CPWC was held in a Workshop in Greek and the list of candidates was announced.



10/1 Thu.-  
10/6 Tue.

Project  
Submission  
Period

10/9 Fri.- 10/15 Thu. Judging Period

Judgment on cloud via  
VR-Cloud



10/16 Fri.  
Announcement of Nominees

## The 4th VDWC Awards

### World Cup Award

Title :  
**The S.T.A.R.S.  
(Sustainable Taches  
and Reactivate Space)**  
Team Name :  
KUUPL  
(Kanazawa University)



### Excellent Award

Title :  
**Tokyo\_Sustainable  
Development**  
Team Name :  
INED\_UT (University  
of Transport and  
Communication)



## Junior 3D VR Seminar



The projects which were created by high school students at Junior Software Seminar both Spring and Summer vacation.





## Chairman

Yuji Abe

Born in Tokyo in 1958 and graduated with a Political Science and Economics major from Waseda University. Mr. Abe has a successful TV career appearing in leading roles as a reporter and host in various Japanese TV programs such as the variety show "Sukkiri!". He is known for his fluency in English, which gave him the opportunities to act as a private teacher to assist many students in passing the entrance exams into prestigious schools. He also has interviewed numerous Hollywood stars visiting Japan without an interpreter.



## Host

Ryuta Ieiri

Mr. Ieiri is an enthusiastic architectural IT journalist who transmits the latest news and information on his blog to provide proposals or solutions using BIM, 3DCAD and to many business challenges that the construction industry often faces, such as productivity growth, global environmental protection and internationalization. Mr. Ieiri is sworn to solve these problems by introducing and popularizing cutting-edge methods such as BIM, 3DCAD and informatization construction, etc.



## Announcement Ceremony

of The 5th VDW / The 3rd CPWC  
CPWC Award Ceremony  
at INTERCITY Hall foyer



### Prix

**Cloud programming cup : 1**  
(Award 300,000 yen, world cup)

**Judge's special prize : 5**  
(Award 50,000 yen, judge's special prize)

**Nominee's prize** (Award certificate, a panel of their work, memorials, FORUM8 original gift )

Cloud Programming World Cup Executive Committee

# THE 3RD Cloud Programming World Cup

Who will lead the VR x IoT era ?!

**VR x IoT: CPWC2015 IS ON !!**

The era of IoT (Internet of Things) is here.  
Humans and electronics/automobiles, buildings, cities are all connected, enabling to interoperate within the Internet infrastructure.  
How will 3D virtual environment like VR (Virtual Reality) and IoT fuse together?  
Great proposals from youth worldwide are anticipated.

## Review

held during International VR Symposium The 6th Summer  
was cut from 48 teams for VDW and 15 teams for CPWC.



**Associate Prof. Tomohiro Fukuda**  
Head of judges and associate professor from the Graduate School of Engineering Osaka University



**Mr. Hiroyuki Hakura**  
The Forum for Advancement of Stereoscopic Three Dimensional Image Technology and Arts" and designated professor of Digital Hollywood University, Graduate School



**Associate Prof. Narahara Taro**  
Associate professor from the College of Architectural Design, New Jersey Institute of Technology



**Mr. Yoann Pencreach**  
Chief Manager of VR development group, FORUM8

## Period

### 11/19 Thu. Results Announcement and Award Ceremony

The 5th Students BIM & VR Design Contest on Cloud  
The 3rd Cloud Programming World Cup  
Presentations by nominated teams  
Final Judgment and Award Ceremony  
Junior 3D VR Seminar Award Ceremony



## Junior Award Ceremony

led by elementary and junior  
Software Seminars held in  
ation will be awarded



## The 2nd CPWC Awards

### World Cup Award

Title :  
**Kinect Smart Drive**  
Team Name :  
Great Sword  
(Shanghai Jiao  
Tong University)



### Overview

Kinect Smart Drive combines Kinect drive and smart drive (automatic assist drive) together. User can use it in UC-win/Road with a Kinect sensor. For the user who do not have kinect, can just use smart drive functions. It is not only a software plug-in, but also a game system, even can be a good tools for researchers research about the automatic drive. We hope everyone can have fun with this wonderful plug-in.

Day 2

11/19 Thu.

# The 9th Design Conference

**Design Analysis**

## The 9th Design Conference Geotechnical Sessions

This session is aimed at introducing numerous geotechnical analysis research and development cases, as well as advanced FEM analysis through a series of special lectures. Furthermore, FORUM8's engineers will introduce the latest products and services information related to geotechnical analysis, such as the VGFlow3D.

### FORUM8 Seminar room

|             |   |
|-------------|---|
| 13:15-14:05 | <b>Special Lecture 5</b><br><b>"Utilizing Geotechnical Information for Geotechnical Analysis &amp; Disaster Evaluation"</b><br>Koji Yamamoto, Lead Researcher, Geotechnical Information Group, Department of Regional Geotechnical Research Department, Institute of Regional Geotechnical & Environmental Researches |
| 14:05-14:55 | <b>Special Lecture 6</b><br><b>"Token C.E.E. Consultants Co. Ltd. - Chubu Branch Office Department of Riverworks Engineering Vice Technical Manager"</b><br>Tomohiro Ogawa, Token C.E.E. Consultants Co. Ltd. - Chubu Branch Office Department of Riverworks Engineering Vice Technical Manager                       |
| 15:05-15:55 | <b>Special Lecture 7</b><br><b>"Quantitative Numerical Analysis of Reinforced Soil Works Using Geotextiles"</b><br>Shinichiro Tsuji, Group Manager of Reinforced Soil, Department of Reinforced Soil & Fluid Displacement, Department of Geosynthetics, Maeda Kosen Co., Ltd.   |
| 15:55-16:30 | <b>Presentation 2</b><br><b>"The latest information of FORUM8's Geotechnical Analysis Series Products"</b><br>Takayoshi Inukai, Forum 8 Co. Ltd.,   |

### Special Lecture 6 14:05-14:55

#### "Extracting and Contrasting the Differences in Analysis Methodology and Pros & Cons Between the Static and Dynamic FEM Analysis of River Levees"

Tomohiro Ogawa, Token C.E.E. Consultants Co. Ltd.  
- Chubu Branch Office Department of Riverworks Engineering Vice Technical Manager



Mr. Ogawa will share his expert experiences on the methodology differences and pros & cons between static and dynamic FEM analysis of river levees, by using the susceptibility analysis of soil liquefaction under a level earthquake ground motion situation as an example. He will also provide some useful tips raise appropriate concerns when using the GeoFEAS2D (static FEM analysis tool) and UWLCD (dynamic FEM analysis tool) with real examples.

**Profile:** Mr. Ogawa is the Vice Technical Manager of the Department of Riverworks Engineering from Token C.E.E. Consultants Chubu Office. He is very experienced with riverwork engineering designs.

### Special Lecture 7 15:05-15:55

#### "Quantitative Numerical Analysis of Reinforced Soil Works Using Geotextiles"

Shinichiro Tsuji, Group Manager of Reinforced Soil, Department of Reinforced Soil & Fluid Displacement, Department of Geosynthetics, Maeda Kosen Co., Ltd.



Geotextiles are uniquely designed fabrics that have the tension strength to reinforce soil stability by using friction. It is sometimes used nowadays in conjunction with other materials to reinforce ground foundation of many earthwork projects. In this presentation, Mr. Tsuji will present and share his experiences and numerical findings of the reinforcement effectiveness of geotextiles with real examples.

**Profile:** Mr. Tsuji graduated from Fukui University with a Ph.D in System Design Engineering in 2005. In the same year, he joined Maeda Kosen Co., Ltd. Since then, he has been researching, developing, and promoting the use of geotextiles for soil reinforcements.

### Special Lecture 5 13:15-14:05

#### "Utilizing Geotechnical Information for Geotechnical Analysis & Disaster Evaluation"

Koji Yamamoto, Lead Researcher, Geotechnical Information Group, Department of Regional Geotechnical Research Department, Institute of Regional Geotechnical & Environmental Researches



The techniques of ground-foundation geotechnical analysis has been advancing rapidly in recent years, enabling engineers to predict ground-foundation transformation patterns in order to derive, evaluate, and correct the countermeasures or evacuation plans for earthquake related hazards. However, performing these analysis would require highly reliable ground-foundation physics models. This session will introduce the latest changes and advances in geotechnical information database, and use cases of incorporating these data to extract the most accurate analysis data.

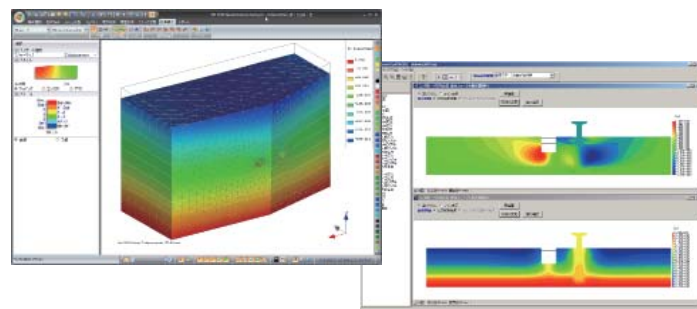
**Profile:** Mr. Yamamoto is a Lead Researcher for the Institute of Regional Geotechnical & Environmental Researches. He holds a Ph.D in Engineering, a Certificate in Construction Engineering, and has long tasked with the development of large-scale geotechnical information database, hazard prevention, and weak ground-foundation related researches.

### Presentation 2 15:55-16:30

#### "The latest information of FORUM8's Geotechnical Analysis Series Products"

Takayoshi Inukai, Forum 8 Co. Ltd., Nagoya Branch Office Manager

introducing new features for both the GeoFEAS(2D) and UWLC. The geotechnical static FEM analysis tool GeoFEAS(2D) will receive new features allowing coupled consolidation analysis, while the dynamic effective ground stress analysis tool UWLC will have triilinear model support for its beam element feature. In addition, Mr. Inukai will announce development status and the future roadmap for the new three dimensional geotechnical FEM analysis integrated package and the new three dimensional osmotic-flow analysis tool VGFlow3D.



11/19 Thu.

 17:40-19:40  
 INTERCITY Hall foyer

## Networking Party and Book Launch Party

Urban Environment Assessment by Hirooh Kasagi, President of NPO Workshop for Sustainable Community Learning Road & Pavement Construction Engineering Through VR by Tatsuoki Inagaki, President of Pave & Road How-To Way Technology Association (Paroway Tec).

Premium users of FORUM8 products are invited.

### 13:15-17:00 Support Sessions (Presentation room)

Technical Support UC-1 Series

UC-1 Series/UC-1 Engineer suite

IM&VR Hands-on Experience Area CIM/BIM Solution



# The 9th Design Conference

Design Analysis

## The 9th Design Conference Analysis and Seismic Sessions

It is an honour to us to have Keiji Furuya who is a former Minister of National Resilience, now a member of the House of Representatives (Japan) and also known as the author of a popular book "Oh I See! - The Various Regional Measures Taken to Build a Disaster-Resilient Nation" give his keynote lecture at our 9th Regional Design Conference. The award ceremony for the 2nd National Resilience Design Competition and special lectures by several prominent users of FORUM8 software in the civil engineering industry who will share their applications will follow.

Keynote lecture 9:30-10:30

### Oh I See! – The Various Regional Measures Taken to Build a Disaster-Resilient Nation – An In Depth Explanation



Keiji Furuya

Member of the House of Representative, Former Minister  
of National Resilience

Mr. Furuya will pick up key points and highlights of the bestseller "Oh I see! - The Various Regional Measures Taken to Build a Disaster-Resilient Nation" to unveil the various national and regional measures being taken to build a disaster-resilient Japan. They include strategies for economic growth as well as plans to source renewal and independent distributed energy to foster new businesses. He will give an in-depth explanation on the prospect of major regional projects down the road and on few of many specific measures against disasters stipulated in the book as 45 programs toward national resiliency.

**Profile :** Former Minister of National Resilience and State for Disaster Management, now a Member of the House of Representative. After graduating from Faculty of Economics, Seikei University, and later working for a leading insurance company, he took up politics and was elected 9 times as a Member of the House of Representative from 5 electoral districts in Gifu. He is the leading figure in many political activities of an all-party parliamentary group: Minister for the Abduction Issue, chairman of review board to reconsider National Security surrounding IT environment, chair of all-party parliamentary group for promoting educational computing, chair of all-party parliamentary group for promoting the next generation energy system, chair of Liberal Democratic-led group for promoting motor sports, and other political activities.

Special Lecture 1 13:15-14:05

### "From Railway Structure Design to Construction to Maintenance"



Tadayoshi Ishibashi,  
Board Chairman, JR East-Japan Consultants

The history of Japanese railway industry dates back to 1872, making the industry 143 years old in 2015. Main materials used to build railway structures in the Meiji era were steel materials imported from abroad and domestic bricks. Domestic steel structures and reinforced concrete structures built then still remain as it is even after 90 years and will continue to be used. On the other hand, a great number of the other structures built by mass production system from the 1970s are starting to show signs of deformation. The problem is especially apparent in structures built in times when technologies could not keep up with the changes engineers kept on making to materials used for construction as well as the construction method. Today, technologies have advanced to the point that it is now possible to not only completely recover these deformations found in railway structures built in those times, but also formulate practical measures to maintain and protect recently built structures, which is something top companies in the industry have been doing and making significant progress. However, the fact remains that there are quite a large number of existing structures that have defects, hence the need to perform appropriate inspections and to take proactive counter measures in order to save these infrastructures for future generation. When a defect in a structure is detected, it is as important to execute direct and tentative measures as it is to take appropriate measures for new structures and existing similar structures.

**Profile :** Mr. Ishibashi entered Japanese National Railways in 1970. He then transferred to East Japan Railway Company in 1987, became the director of Structural Technology Center in 1995, and won The Japan Society of Civil Engineers Tanaka prize in recognition of his "Outstanding achievement in extensive research and development and a leading role in the design, construction, maintenance, and management of concrete railway bridge". He always was, and continues to be involved in numerous disaster recovery initiatives as a proud member of Japanese National Railways and East Japan Railway Company. He also serves as an honourable member of Japan Society of Civil Engineers.

Special Lecture 2 14:05-14:55

### "Tunnel Management using a mobile imaging and mapping system that incorporates VR Technology"



Toru Yasuda, Toru Yasuda, Chief Engineer of Quality and  
Technology Control Center, Pacific Consultants co., Ltd.

A breakthrough technology offering a complete solution for tunnel management will be the main topic of this presentation. Mobile Imaging Technology & Mobile Mapping System (MIMM-R) carrying a laser scanner, radar scanner, and camera measure and record the shape of the target tunnel as a huge collection of point cloud data. Point cloud is then used as an accurate map on which to build a 3D VR model depicting the tunnel's current condition. In particular, VR image of the tunnel wall is produced by automatic synthesis, and 3D model accurately representing signs of deformation and the cavity built into the back side of the tunnel wall with correct positional information is built to extract objective results of inspection. Appropriate safety diagnosis is then performed based on this result.

**Profile :** After entering Pacific Consultants co., Ltd. in 1984, he commits himself in the field of tunnels for over 30 years designing, maintaining, and managing tunnels which helped him get promoted to his current post as a Chief Engineer of Quality and Technology Control Center. He led the company's initiative in acquiring MIMM-R which started in 2007. He is the author of the 2004 thesis for Kyoto University degree "Research on the Optimization of the Maintenance and Repair of Tunnel Structures".

## INTERCITY Hall

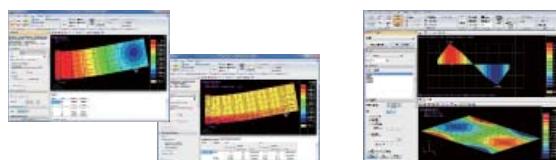
|             |  |
|-------------|--|
| 9:30-10:30  | <p>Keynote lecture</p> <p><b>Oh I See! – The Various Regional Measures<br/>Taken to Build a Disaster-Resilient Nation<br/>– An In Depth Explanation</b></p> <p>Keiji Furuya , Member of the House of Representative,<br/>Former Minister of National Resilience</p>  |
| 10:30-12:00 | <p>Award Ceremony</p> <p><b>Award Ceremony for The 2nd National Resilience Design Award</b></p>  |
| 13:15-14:05 | <p>Special Lecture 1</p> <p><b>"From Railway Structure Design to Construction to Maintenance"</b></p> <p>Tadayoshi Ishibashi<br/>Tadayoshi Ishibashi, Board Chairman, JR East-Japan Consultants</p>  |
| 14:05-14:55 | <p>Special Lecture 2</p> <p><b>"Tunnel Management using a mobile imaging<br/>and mapping system that incorporates VR Technology"</b></p> <p>Toru Yasuda, Toru Yasuda, Chief Engineer of Quality<br/>and Technology Control Center, Pacific Consultants co., Ltd.</p> |
| 14:55-15:20 | <p>Presentation 1</p> <p><b>"Introduction to WCOMDStudio together<br/>with FORUM8's Latest FEM Solutions"</b></p> <p>Norio Tashiro, FORUM8 Co., Ltd.,</p>  |

Presentation 1 14:55-15:20

### "Introduction to WCOMDStudio together with FORUM8's Latest FEM Solutions"

Norio Tashiro Manager of Analysis Support Team, FORUM8 Co., Ltd.,

WCOMD Studio, a new product derived from its predecessor UC-win/WCOMD with significantly improved pre and post processors to improve work efficiency, in addition to the latest FEM solutions including 3D non-linear analysis program Engineer's Studio(R), integrated FEM analysis program FEMLEEG, Geotechnical Finite element Elastoplastic Analysis Software GeoFEAS 2D and GeoFEAS 3D will be introduced with use cases of FORUM8's analysis support service.



# The 9th Design Conference Design Analysis

## The 9th Design Conference CIM Sessions

Sessions under the theme of CIM solution which has been introduced for the various kinds of field in these days will be held. In one of the special lectures, the case study about 3D CIM development design support system built by FORUM8 and delivered for Takenaka Civil Engineering & Construction will be introduced.

### INTERCITY Hall

|             |  |
|-------------|--|
| 15:30-16:20 | <div style="background-color: #FFD700; padding: 2px;">Special Lecture 3</div> <b>"A Three Dimensional CIM Development &amp; Design Assistance System Based on UC-win/Road"</b><br>Suguru Hirai<br>Technical Manager, Production Department, Takenaka Corporation |
| 16:20-17:10 | <div style="background-color: #FFD700; padding: 2px;">Special Lecture 4</div> <b>"Case study of CIM&amp;VR use"</b><br>Takeshi Magara, Duty Manager of CIM/ Informationalized Construction Team of Planning and Development Group, iwasaki Co., Ltd.             |
| 17:10-17:30 | <div style="border: 1px solid black; padding: 2px;">Presentation 2</div> <b>"3DCAD Studio® and FORUM8 CIM solution"</b><br>Tateyasu Okuma, FORUM8 Co., Ltd.  |

Special Lecture 4 16:20-17:10

### "Case study of CIM&VR use"

Takeshi Magara, Duty Manager of CIM/ Informationalized Construction Team of Planning and Development Group, iwasaki Co., Ltd.



"CIM" which Japanese Ministry of Land, Infrastructure, Transport and Tourism have been working on has been lately used at the various kinds of situations mainly in the trial models business. His company has offered solution using 3D measurement devices and CAD software since 2006 and supported a number of customers. In his lecture, the effect and use of multidimensional data due to introducing CIM and VR as well as the case studies using VR-Design Studio (UC-win/Road) will be introduced.

**Profile :** After graduating from a university in Hokkaido, he has worked as an engineer at a construction company until now. In his current job, he has been working on the total support for CIM and informationalized construction and verification aimed at more advanced new technology created.

Special Lecture 3 15:30-16:20

### "A Three Dimensional CIM Development & Design Assistance System Based on UC-win/Road"

Suguru Hirai, Technical Manager, Production Department, Takenaka Corporation



In terms of a company-wide technical support, he has worked on the quality improvement, intelligence sharing and dealing with technical issues, of which he will introduce what he has been working on about the land developing business in 3D environment as the CIM technology. He will also introduce the application example and the merit to use VR-Design Studio (UC-win/Road) at the construction spot while demonstrating 3D CIM development design support system which was built based on VR-Design Studio.

**Profile :** He has worked as the chief for both the Technical Development Department in Technical and Production Department and Technical Development Department in the Engineering Laboratory. He has tasked in a renewal field as manpower saving due to informationalized construction, in a disaster prevention field as liquefaction countermeasure etc., technical development including building concrete and tunnel and quality improvement etc.

Presentation 2 17:10-17:30

### "3DCAD Studio® and FORUM8 CIM solution"

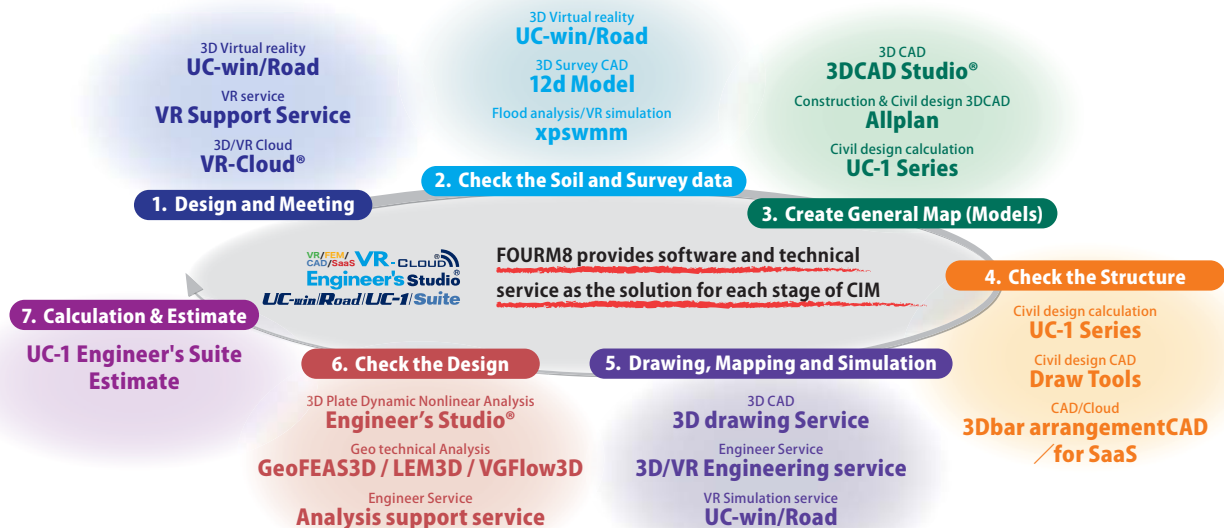
Tateyasu Okuma, Duty Chief of VR Development Group, FORUM8

He will introduce the overview of "3DCAD Studio®" which is the revolutionary 3D modeling software adopting the engine developed for the purpose of making Civil 3D CAD made in Japan popular as well as FORUM8's CIM products and future development.



# IM & VR

Solution for Architecture and Civil Engineering Design via BIM/CIM





# The 9th Design Conference

Design  
Analysis

## The 9th Design Conference Water Works Sessions

Considering the recent flood disasters caused by recurring heavy rainfall, experts will give their presentation on some of the latest approaches to analysis of the risk and hazard associated with flood/inundation as to prevent or mitigate damage attributing to the disaster. Delegates from XP Solutions will present the latest features of xpswmm2015 and its applications, representative from FORUM8 Development Sector will announce the latest updates on the new products and developments of UC-1 water works design series.

### FORUM8 Seminar room

|             |   |
|-------------|---|
| 13:15-14:05 | <p><b>Special Lecture 5</b></p> <p><b>"Water diaster risk analysis and strategies to building a flood proof city"</b></p> <p>Tetsuya Sumi<br/>大Dept of Engineering, Department of Architecture, Daido University</p>    |
| 14:05-14:55 | <p><b>Special Lecture 6</b></p> <p><b>"Case studies of 2D modeling via xpswmm"</b></p> <p>Tatsuo Yamada<br/>Nihon Suiko Sekkei Co., Ltd.</p>  |
| 15:05-15:55 | <p><b>Special Lecture 7</b></p> <p><b>"The latest case studies of flood simulation model xpswmm 2015 and future development plan for XP2D FV"</b></p> <p>Sudesh Mudaliar, XPswmm Inc. Vice President - Asia Pacific</p> |
| 15:55-16:45 | <p><b>Special Lecture 8</b></p> <p>Case studies of water works solution by FORUM8 users</p>   |
| 16:45-17:25 | <p><b>Presentation 3</b></p> <p><b>"The latest on FORUM8's water work design software and future development"</b></p> <p>Takayoshi Inukai, FORUM8 Co., Ltd.</p>   |

**Special Lecture 7** 15:05-15:55

### "The latest case studies of flood simulation model xpswmm 2015 and future development plan for XP2D FV"

**Sudesh Mudaliar**  
XP Solutions Inc. Vice President - Asia Pacific



xpswmm is a complete stormwater, sewer, and floodplain model for a fully dynamic hydraulic and hydrologic modelling. It combines 1D calculations for upstream to downstream flow with 2D overland flow calculations for an accurate prediction of the extent of inundation on floodplains in the event of flood or other catastrophic events. The lecture will cover the application of radar rainfall estimate localized torrential downpour in xpswmm, a new layer called Sewersheds which has been added to xpswmm2015, and xp 2D FV(Finite Volume), a whole new 2D hydrodynamic model implemented in xpswmm which solves the full 2D de Saint Venant equations (also known as the Shallow Water Equations, SWEs) using a first-order finite volume solution technique, with wetting and drying for complex topography.

**Profile** : Sudesh is the Vice President of XP Solutions and manages the Asia Pacific region. He has also been responsible for the company's research and product development group for several years. He has experience in engineering software development and project management. With over 20 years of experience, Sudesh brings to the group a strong understanding of software development in the flooding and stormwater management.

**Presentation 3** 16:45-17:25

### "The latest on FORUM8's water work design software and future development"

- Flood plug-in and FORUM8's water works series -

**Takayoshi Inukai**, Chief Manager of FORUM8 Co., Ltd. Nagoya Office

Latest updates on the the new products in UC-1 water works series products and VGFlow (solver of 3D unsaturated/saturated seepage flow analysis by FEM) will be introduced. The story behind the recent development of a flood plug-in for importing flood simulation analysis results from NILM2.0 - urban flood and drainage analysis modeling engine developed by National Institute for Land and Infrastructure Management - into UC-win/Road (aka VR-Design Studio) will be shared with additional talks on the general concept of flood simulation, main features of the flood plug-in, and the applications.



**Special Lecture 5** 13:15-14:05

### "Water diaster risk analysis and strategies to building a flood proof city"

**Tetsuya Sumi**, Dept of Engineering, Department of Architecture, Daido University



Hydraulic and hydrology models for the analysis of inundation caused by river overflow into the wetlands due to heavy rain have not only helped produce hazard maps that address the expected extent of inundation but also made remarkable contribution to the development of measures to be taken in an event of a disaster such as identifying evacuation routes. In today's Japanese society with an aging population, a long term strategy for building a flood proof city based on the idea of consolidating the whole town in an area with a relatively low risk of flood hazards becomes a must. A brief lecture on the current risk assessment methods, technical issues that must be solved before gathering and analyzing key information required during disasters attributing to heavy rainfall, and social and economical issues that need to be sorted out to pave way for building such a city will be given.

**Profile** : Took his current position after years of experience as a professor in the Graduate School of Nagoya University. While devoting himself to numerous research on hydrological phenomenon often seen in basins and environmental impacts on rivers and floodplains due to heavy rain, he finds an opportunity to engage in a proactive research on water disasters to find ways to prevent them during his own investigation on the 2000 torrential rainfall that struck the Tokai region in Japan.

**Special Lecture 6** 14:05-14:55

### "Case studies of 2D modeling via xpswmm"

**Tatsuo Yamada**  
Nihon Suiko Sekkei Co., Ltd.



Application of 2D model for rainwater flow over the surface of an architectural design in xpswmm will be introduced. A number of trial calculations were performed via simulation of runoff and the course of that water over an irregular shaped roof top using xpswmm 2D model to validate such design on many aspects including the ability to drain rainwater effectively. Important points to consider when building a model of such roof including drawing Fill Areas and the effect of changing triangular mesh sizes will be shared with a number of issues to be solved.

**Profile** : Job description: Formulation of sewerage planning, etc. Education: Graduated College of Science and Technology, Nihon University Department of Civil Engineering (March 2000)

**13:15-17:00** **Support Sessions (Showroom aisle)**

**Technical Support** **UC-win Simulation series**

**UC-win/Road · VR-Cloud®**

**IM&VRHands-on Experience Area** **CIM/BIM Solution**



## The 8th International VR Symposium The 1st State of the Art Technologies in Expression session

### The Hottest & Most Current 3D Projects Explained!

An Overview Peek at the World 16 Summer Workshop

#### Drone Flying over Greek Skies!

Making 3D Modes by Utilizing 4K Videos and Photogrammetry

#### Laser Scanning Turns Streets or Cities into Point-Cloud Data!

An Evaluation of the Capabilities of Portable Scanners

#### Turn VR City Data into Projection Mapping Projects

Performing Projection Mapping onto Objects Created by 3D Printers and Laser Cutters

#### Projection Mapping VR Projects onto Japan's Ancient Bridges and World Heritage Site Mt. Goka

An Entertaining Twist of a VR City Model by Game Developers!

### Design Festival Eve! Projection Mapping - See It, Feel It, Love It!

Shinagawa Prince Hotel Club eX starting at 18:30 PM, November 17.



CRAVA inc.

The city data created through a perspective of creative gaming view can be seen. This uses VR-Design Studio (UC-win/Road) but looks a little different. You will feel a new possibility of 3DVR and the expression technique.



3D contents



Research and Development



TV contents



program contents



2D contents



mobile contents



UC-win/Road and online game on roads at FORUM8 booth for Tokyo Game Show



Seminar for Creators via UC-win/Road held in June, 2015



World16



**Yoshihiro Kobayashi**  
Arizona State University



**Matthew Swarts**  
Georgia Institute of Technology



**Ruth Ron**  
Shenkar College



**Kostas Terzidis**  
Harvard University



**Paolo Fiamma**  
University of Pisa



**Thomas Tucker**  
Virginia Polytechnic Institute and State University



**Tomohiro Fukuda**  
Osaka University



**Taro Narahara**  
New Jersey Institute of Technology

Soat

CRAVA, Inc.



**Satoru Machida**  
The Association of State of the Art Technologies in Visual Expression



**Masaya Mikami**  
Chief Director of CRAVA

# State of the Art Technologies in Expression Association launches Cultural Heritage 3D VR visualization and Archiving Project!

Projects launched by State of the Art Technologies in Expression Association aimed at revitalizing cultural heritage sites through Projection Mapping and other forms of state-of-the-art VR technology.



## ■ Projection Mapping across "Kintai Bridge", a tourist hot spot. (Iwakuni, Yamaguchi Prefecture, Japan)

Projects launched by State of the Art Technologies in Expression Association aimed at revitalizing cultural heritage sites through Projection Mapping and other forms of state-of-the-art VR technology.



Projection Mapping across Kintai Bridge



3D measurement of the bridge.

## ■ 3D VR model of the world heritage "Historic villages of Gokayama" built

On the request of the city of Nanto, Toyama, a gasshō-zukuri-styled minka home of Murakami in the Historic Villages of Gokayama, one of Japan's UNESCO World Heritage Sites, was reproduced as 3D VR model with embedded 3D CG movie. Though navigation of the VR model, the secret behind the design that allows the house to withstand and shed the weight of the regions heavy snowfalls in winter is unveiled.



3D model of "Home of Murakami", a world heritage site.



Modest room with splended Buddhist alter.



Scene of sericulture

11/17 Thu.

Eve

17:00-21:00

Shinagawa Prince Hotel Club eX

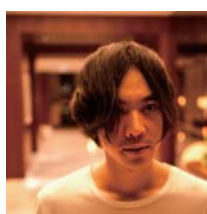
The party held before Design Festival 3 days. Projection Mapping & Illumination via The Latest Arts Technology can be seen at Shinagawa Prince Hotel Club eX.



9th FORUM8 DesignFestival eve

## “Projection Mapping & Illumination via The Latest Arts Technology !”

- FORUM8 users and visitors from overseas will be very much welcomed! A dinner buffet modeled after Japanese Festival food stalls will be held.-



### DJ ONI

DJ Oni travels and has performed in London, Tokyo, Myanmar and India. He has also worked on numerous huge events for both embassies and commercial patrons.

11/20 Fri.

18:00-20:00

FORUM8 Showroom

During the last night of Design Festival 2015, the projection mapping performance exhibited. After that, farewell party will also be held.

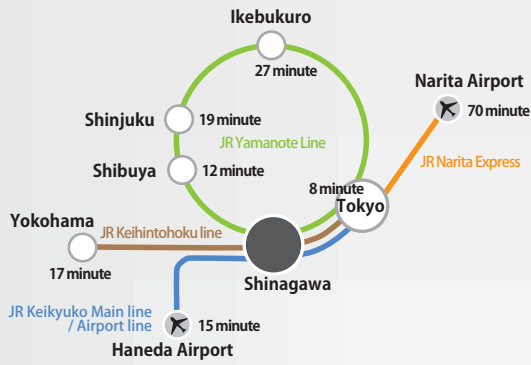


# Site Information

## Access Map to SHINAGAWA INTERCITY Hall

8 minutes walks from Konan exit of Shinagawa station ( Tokaido/Sanyo Shinkansen, JR Yamanote line, Tokaido line, Yokosuka line, Keihintohoku line and Kyokyu line)

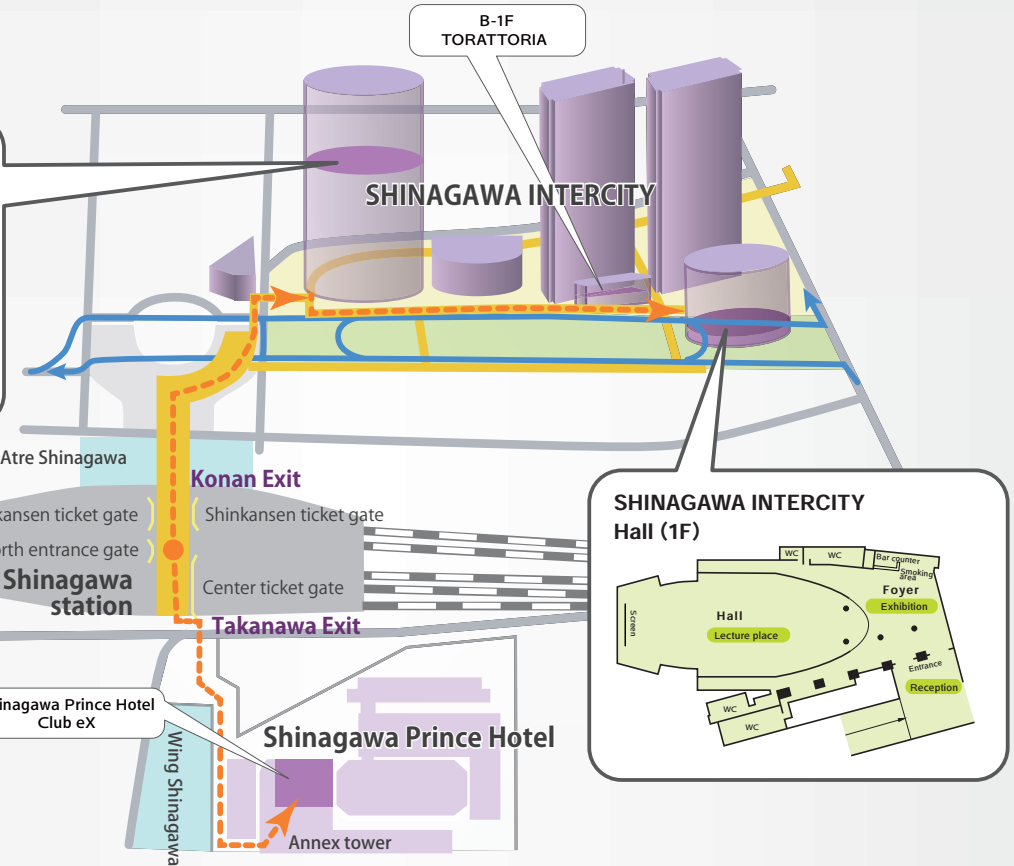
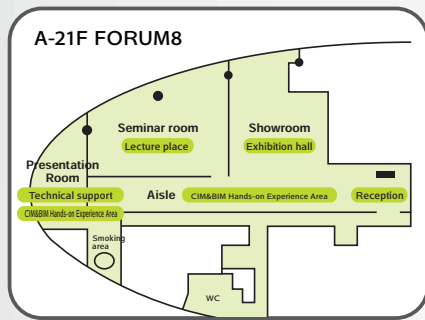
\* There is no designated parking area. Please use public transportation or public parking area surrounding the hall



## Address of SHINAGAWA INTERCITY

2-15-4, Konan, Minato-ku Tokyo 108-6105

TEL : +81-3-3474-0461 <http://www.sicity.co.jp/>



Skyway (2F)  
Access to Shinagawa

**3D/VR on Cloud**

Access route from Shinagawa Station to Shinagawa Intercity and the inside of the hall can be seen on VR-Cloud®

### To view guidance to the venue and annotations on each and every location of interest within the venue

Go to "Participate" > "View discussions" or "View annotations". When you click the list, you will be able to view annotations on each location of your interest.



## FORUM8 Co., Ltd.

|   |  |
|---|--|
| <p>Tokyo head office      〒108-6021 Shinagawa Intercity Tokyo head office A-21 TEL : +81-3-6894-1888 FAX : +81-3-6894-3888</p> <p>Osaka Branch Office    Tel +81-6-7711-3888</p> <p>Fukuoka Business Office Tel +81-92-289-1880</p> <p>Sapporo Office        Tel +81-11-806-1888</p> <p>Miyazaki Office        Tel +86-21-6859-9898</p> <p>Shanghai Office        Tel +8869-3511-6836</p> <p>Taiwan                  Tel +886-2-2655-8375</p> | <p>Nagoya Showroom <b>NEW</b>      Tel +81-52-688-6888</p> <p>Sendai office            Tel +81-22-208-5588</p> <p>Kanazawa Office        Tel +81-76-254-1888</p> <p>Super computer cloud Koge Laboratory Tel +81-78-304-4885</p> <p>Tsingtao                Tel +86-532-66729637</p> <p>London                  Tel +44(0)203-753-5391</p> |
|---|--|

Entire organization certified to ISO27001 (ISMS)  
Entire organization certified to ISO22301 (BCMS)  
Entire organization certified to ISO9001 (QMS)

