

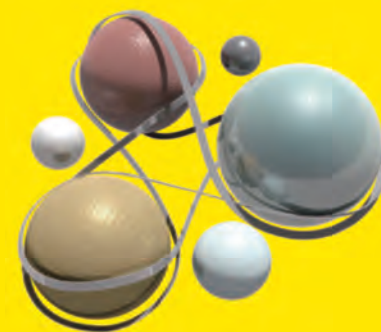


# 13th

# FORUM8 DESIGN FESTIVAL 2019

# 3DAYS+EVE

All about FORUM8 & Products.



2019 11/13 Wed - 11/15 Fri [EVE 11/12 Tue]

Shinagawa Intercity Hall·Foyer  
A-21F FORUM8



Organizer : FORUM8 Co., Ltd.

CPWC Organizer : Cloud Programming World Cup Executive Committee

VDWC Organizer : Virtual Design World Cup Executive Committee

**AUTONOMOUS DRIVING**

**NATIONAL RESILIENCE**

**CAD / DESIGN / CLOUD**

**3DVR SIMULATION**

**BIM / CIM & VR**

**FEM ANALYSIS**



## Greeting

New software, case examples of system, and researches are introduced every year at FORUM8 Design Festival 3Days+Eve. How can the automobile industry that is the core of manufacturing industry in Japan develop in the striving international competition towards the realization of autonomous driving? FORUM8 will hold The 4th Autonomous Driving Conference that consists of lectures by specialists from the autonomous-driving-related departments of 4 ministries. The experts solve many questions from visitors every time. In The 18th 3DVR Simulation Contest, the participants show their VR usage ways in various fields such as studies on automobile, driving and traffic simulation, and city planning. This year we are planning to announce the new features of UC-win/Road Ver.14 and a new product VR-NEXT. On the Day2, student teams nominated from all over the world will gather for the final judgment and award ceremony of The 7th Cloud Programming World Cup CPWC, The 9th Student BIM & VR Design Contest on Cloud VDWC. The Hagura Award held by the State of the Art Technologies in Expression

Association, and The 12th International VR Symposium are also worth seeing. On the Day3, we will invite Mr. Scot Osterweil from the Game Lab of Massachusetts Institute of Technology (MIT) for a special lecture. Expectations are rising for education games in a variety of fields created by the game designer being active in the industrial world and education fields. The 6th National Resilience Design Award is the place where various technical works contributing to the national resilience and disaster mitigation are presented. At the network party on the Day1, FORUM8 will introduce 5 books newly published by FORUM8 Publishing. In addition, at the exhibition corner, guests can experience the latest FORUM8 solutions including Shade3D Ver.20, VR-NEXT, and the 360 degree simulator revealed at CES Shanghai. It is my pleasure to host the Design Festival as an opportunity for showing FORUM8's VR, CG, 3DCAD, and FEM. We are really looking forward to seeing you and thinking together about how we can use FORUM8's software and systems to improve user's and engineer's productivity and make your works more efficient.

CEO and President of FORUM8, Yuji Ito

## SCHEDULE — 13th FORUM8 DESIGN FESTIVAL 2019

11/13  
WED

DAY1

P04

- ▶ The 4th Autonomous Driving Conference  
METI, MIC, MLIT, and NPA deliver 5 lectures!
- ▶ Guest Greeting Member of the House of Representatives Mr. Keiji Furuya

P05

- ▶ The 18th 3D • VR Simulation Contest on Cloud Award Ceremony
- ▶ Book Launching Lecture
- ▶ Networking Party, Book Launch Sale

11/14  
THU

DAY2

P06

- ▶ VR Conference The 20th UC-win/Road Conference
- ▶ Presentation "Latest functions and future vision of Shade3D"
- ▶ The 7th CPWC / The 9th VDWC Open Final Judgment, Award Ceremony
- ▶ The 5th Junior Software Seminar Award Ceremony

P07

- ▶ The 5th State of the Art Technologies in Expression Association /Latest Technology Art Session
- ▶ Special Lecture Mr. Katsura Hattori "What is the information environment in next generation that VR is aiming at?"
- ▶ Greeting Mr. Akira Hasegawa State of the Art Technologies in Expression Association The 3rd Hagura Award
- ▶ The 12th International VR Symposium

11/15  
FRI

DAY3

P08

- ▶ The 13th Design Conference
- ▶ Special Lecture Mr. Hiroaki Aoki "Technology development of autonomous operation of construction machine by using UC-Win/Road"
- ▶ Special Lecture Prof. Scot Osterweil "Play the future"

P09

- ▶ The 6th National Resilience Design Award
- ▶ "See you again next year"

11/16  
SAT

DAY4

P10

- ▶ Special event for premium users



• Technical tour  
Autumn leaves in Yamanashi /  
Sophisticated art and  
Fuji Gotemba Outlet store



• Golf  
Camellia Hills  
Country Club

## PRESENT Present for visitors



FORUM8 Original  
mobile battery



FORUM8 Original  
book card



FORUM8 Original  
notebook / ballpoint pen



FORUM8 Original  
Eco bag



Lunch coupon  
(for Premium users)

※The images are in production and may differ from the actual design.

FORUM8 DESIGN FESTIVAL 2019 EVE

design festival 2019

# IEVIE

11/12 Tue 18:00 Shinagawa Intercity Hall Foyer

Sports and technology art experience type entertainment space

## Harmony of Sport with technology

Video expression, lighting, stage performance based on technology and sound

ONI produce

DJ ONI × Kanbe × Anna Sato × Osao Hori × ONO × Haruka Gomi and more

Tap Dance showcase

Lily & Yuki

Kado Live performance

Kouen Yokoi

Singer Stage

Yully

Talented Japanese singer performing  
at NY Apollo Theater in 2019

Kendama performance

ZOOMADANKE

Highly entertaining Kendama  
performance getting artistic  
evaluation from all over the world

Double Dutch

Mix At Will

Double Dutch performance by 4 members  
who performed in the world competition

freestyle football

Tatsuya Adachi

Center performer of the top  
entertainment group in Japan  
"Ball Beat Crew"

Bike up the steepest slope  
in Tokyo

Steep slope bicycle simulator x Tecchan

# The 4th Autonomous Driving Conference




9:50-15:20

**METI, MIC, MLIT, and NPA deliver 5 lectures!**

UC-win/Road is used for a variety of automobile related fields such as road design, vehicle system development, ITS, ADAS and autonomous driving. This conference covers the newest features of the 3DVR software supporting these advanced R&D and examples of system development. At the "4th Autonomous Driving Conference", specialists from the governments will deliver lectures about trends, current issues, and prospects in the country and abroad.

**Opening Address** 9:50-10:00  
**Opening address of The 13th FORUM8 Design Festival** CEO and President of FORUM8, Yuji Ito

<p><b>Special Lecture1</b> 10:00-10:35</p>  <p><b>Director of Autonomous Driving and ITS Promotion Office, Automobile Division, Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry</b>  <b>Mr. Kenji Ueki</b></p> <p><b>Profile</b>          Born in May 1974. After he finished his master at Tokyo Institute of Technology in March 1999, he joined the Ministry of Economy, Trade and Industry. He took his current position in July 2019.</p> <p><b>"The METI's involvement to realize autonomous driving"</b></p> <p>The METI established the "Autonomous Driving Business Study Commission" together with the MLIT and is promoting activities required for the realization of autonomous driving in order that the Japanese automobile industry increases the competitive power and contributes to the resolution of social issues such as reduce of traffic accident. Based on the debates in the study commission, Mr. Ueki introduces METI's current activities including "the policy toward the realization of autonomous driving".</p>	<p><b>Special Lecture2</b> 10:35-11:10</p>  <p><b>Director of Mobile Satellite Communications Division, Radio Department, Telecommunications Bureau, Ministry of Internal Affairs and Communications</b>  <b>Mr. Naohiko Ogihara</b></p> <p><b>Profile</b>          In April 1992, he joined the Ministry of Internal Affairs and Communications (FKA the Ministry of Posts and Telecommunications) and mainly was engaged in R&amp;D and frequency allocation. He took his current position in July 2018.</p> <p><b>"Trends and MIC's involvement towards the achievement of autonomous driving"</b></p> <p>As the entire world is aiming at the achievement of autonomous driving, the communication is having more and more important role. In this lecture, Mr. Nakazato explains the trend of autonomous driving and introduces R&amp;D, technology test, and new wireless system including 5G expected to be used for vehicles.</p>	<p><b>Special Lecture3</b> 11:10-11:45</p>  <p><b>Chief of ITS Policy and Program Office, Road Traffic Management Office, Road Bureau, Ministry of Land, Infrastructure, Transport and Tourism</b>  <b>Mr. Katsuya Abe</b></p> <p><b>Profile</b>          Joined Ministry of Land, Infrastructure, Transport and Tourism (FKA Ministry of Construction) in 1995. Finished his master in Graduate School of Tokyo Institute of Technology. He took his current position in August 2018 after experiencing the chief of Kyushu Regional Development Bureau.</p> <p><b>"MLIT Road Bureau's involvement in autonomous driving"</b></p> <p>To ensure the human resource and commodity distribution in aging mountain areas, the MLIT is testing the introduction of autonomous driving service in those areas by utilizing the rapidly improving autonomous driving technology. In this lecture, Mr. Abe talks about the proving test of autonomous driving service and how it can help the travel in living and the transportation of agricultural products. He also introduces what issues we have and how we should solve them toward the goal in 2020.</p>
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<p><b>Guest Greeting</b> 13:00-13:20</p>  <p><b>President of "Parliamentary group for considering Automobile Culture" Member of the House of Representatives</b>  <b>Mr. Keiji Furuya</b></p> <p><b>Profile</b>          A member of the House of Representatives, a primary minister who is in charge of national toughening and disaster prevention. Graduated from the faculty of economics of Seikei Univ. and joined a major insurance company. He was chosen in an election of the House of Representatives for 9 times in Gifu's 5 constituency. His actions in the parliamentary group: pres. of the provision team of the Liberal Democratic Party against the abduction issue by North Korea, pres. of the committee for the IT security, pres. of the parliamentary group for promoting informatization education, pres. of the parliamentary group for promoting the next generation energy system, pres. of the motor sports promotion team in LDP, etc. The author of several books.</p>	<p><b>Special Lecture4</b> 13:20-13:55</p>  <p><b>Director of Autonomous Driving Strategy Office / Engineering Policy Division Road Transport Bureau, Ministry of Land, Infrastructure, Transport and Tourism</b>  <b>Mr. Takahiro Hirasawa</b></p> <p><b>Profile</b>          Entered Ministry of Land, Infrastructure, Transport and Tourism (FKA Ministry of Transportation) in 1995. He took his current position in July 2018 after experiencing the post of the director for Recall Enforcement Office.</p> <p><b>"Activities related to autonomous driving in the automotive field"</b></p> <p>The Road Bureau of MLIT promotes a manufacturing of safe vehicle by formulating vehicle safety standards and develops, put into practical use, and spreads vehicles equipped with the safety driving support system using advanced technologies. The purpose of its efforts is to contribute to reduce car accidents. In this lecture, Mr. Hirasawa introduces activities related to the latest vehicle technologies including the autonomous driving technology.</p>	<p><b>Special Lecture5</b> 13:55-14:30</p>  <p><b>Director of Autonomous Driving Planning Office, Traffic Planning Division, Traffic Bureau, National Police Agency</b>  <b>Mr. Toshihiro Sugi</b></p> <p><b>Profile</b>          He graduated from the School of Commerce, Waseda University in March 1988, and entered the National Police Agency in April. He experienced the director of the Police Administration Department, Nagasaki Prefectural Police, and Investigator of the Allowance and Welfare Division, Commissioner General's Secretariat, NPA, and took his current position in June 2017.</p> <p><b>"NPA's involvement in autonomous driving"</b></p> <p>Autonomous driving is considered as the technology that contributes to reducing and easing traffic accidents in the future Japan, and the NPA is also working to support its advancement. In this lecture, Mr. Sugi introduces the current world trends about the autonomous driving, and the NPA's efforts related to it.</p>
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**Virtual Reality Design Studio UC-win/Road Presentation** 14:30-15:20

**"Utilization and future vision of VR for autonomous driving, ADAS, mobility R&D, and training"**  
 Katsumi Matsuda, Executive Officer and System Sales Manager of FORUM8

A variety of functions are required for the virtual space used as the experiment environment in the autonomous driving, ADAS, and mobility fields due to the advancement of research and development. In this presentation, Mr. Matsuda explains cases from VR construction and flexible experiment scenario setting using open data, utilization in the AI field, application to the driving training, to the system construction cooperated with measuring device and real-time HIL system. He also introduces case examples of embedded system development, system development using game engine, and linkage with the comprehensive 3DCG software Shade3D corresponding to the major formats including IGES / STEP / STL. In addition, he introduces the activities of the VR Promotion Conference that is building the VR models and platforms of each city in Japan and abroad to aim at the utilization of VR in various industries including the R&D of autonomous driving.

**"New functions and new developments of UC-win/Road"**  
 Pencreach Yoann, Executive officer and Development Senior Manager of FORUM8

Mr. Yoann introduces the new functions of UC-win/Road Ver.14 supporting the development of autonomous driving and ADAS technology. He explains the expansion of system linkage and sensing simulation function, adjustment and optimization of system by the experimental play function, and the current correspondence to the open standard. At the end, the development roadmap of the state-of-the-art rendering engine and utilization of cloud technology is introduced.

# The 18th 3DVR Simulation Contest on Cloud Award Ceremony- The 18th 3DVR Simulation Contest

15:35-17:20

**Experts explain awarded works data.**

**Don't miss new possibilities of the UC-win/Road!**

Advanced VR data works gather from Japan and overseas for the 3D VR Simulation Contest on Cloud. The competition objects are expanded to various fields such as environmental assessment, disaster prevention, and education and training in addition to civil engineering, architecture, and traffic and vehicle in recent years. At the award ceremony, experts will explain the prize-winning data. Do not miss the event to know new possibilities of the evolving UC-win/Road.

**the 17th Award works**

<p><b>Grand Prix</b></p>  <p><b>VR simulation for Hokkaido Shinkansen Sapporo station design and construction</b>          Hokkaido Railway Company</p>	<p><b>Excellence Award</b></p>  <p><b>3DVR of Winding tower in Shime mining factory and Related facilities (in 1964)</b>          Tho.La.Consulting</p>
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<p><b>Excellence Award</b></p>  <p><b>VR data for ship operation simulator</b>          AKISHIMA LABORATORIES (MITSUI ZOSEN) INC.</p>	<p><b>Idea Award</b></p>  <p><b>Safety driving simulator for university students</b>          Republic of China (Taiwan)</p>	<p><b>Essence Award</b></p>  <p><b>Autonomous driving simulation of mining dump truck</b>          Construction Machinery Co., Ltd.</p>	<p><b>Honorable Judge Award</b></p>  <p><b>Dual drive EPS system simulator</b>          DENSO Corporation</p>
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**Host / Presenter**

**Mr. Ryota Ieiri**  
 Host / Presenter

**Juries**

**Prof. Fumio Seki**  
 Chief of the Judging committee / Professor of Engineering department, Nihon University

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

**Mr. Tatsuoki Inagaki**  
 Director of Pave & Road How-To Way Technology Association

**Book Launching Lecture** 17:20-17:40

Four books created by FORUM8 and published by FORUM8 Publishing come out at the Design Festival 2019. The authors and editorial supervisors are invited and introduce the theme of their own books. The books are published only in Japanese.

<p><b>100 Greatest Bridge</b></p>  <p><b>NPO Civil Machizukuri Station</b></p>	<p><b>Shade3D Official Guidebook 2020</b></p>  <p><b>FORUM8 FORUM8 Shade3D Development Group</b></p>	<p><b>Expression Technology Test Official guidebook data processin/database</b></p>  <p><b>Kazuki Ishikawa</b></p>
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**Schedule**

10 / 8 Tue Deadline for works submission

10/15 Tue Meeting for selecting nomination works

11/1 Fri~11/10 Sun

**Public Voting on Cloud**

Vote via **VR-Cloud®**!  
 Access to the website below!  
<http://vrcon.forum8.co.jp/>

**FPB Get FPB 1000pt**

We will grant FPB1000pt to all users that view and voted 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!

11/12 Tue Examining Meeting  
 Venue: FORUM8 Tokyo Head Office

11/13 Wed Result Announcement and Award Ceremony of the 18th 3DVR Simulation Contest on Cloud  
 Venue: Shinagawa Intercity Hall

**Awards**

**Grand Prix**  
 GALLERIA high-performance gaming notebook / Portable SSD / Certificate / Trophy / Book card

**Semi Grand Prix**  
 GALLERIA gaming laptop / Certificate / Book card


**Idea Award / Essence Award**  
 Raytrek 10inch Windows tablet / Certificate / Book card

**Honorable Judge Award**  
 360 degree action camera Insta360 ONE X / Certificate / Book card

**Nomination Award** Certificate / Book card  
 \*PCs are provided by THIRDWAVE Corporation.

**Networking Party, Book Launch Sale** 17:45-

**Venue Foyer**




**VR** -The 20th UC-win/Road Conference-  
The 20th VR Conference

**Opening Address** 9:50-10:00

**Opening address of The 13th FORUM8 Design Festival** CEO and President of FORUM8, **Yuji Ito**

**Presentation** 10:00-10:30

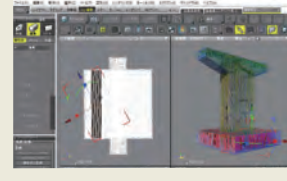


**FORUM8**  
Shade3D Development Group  
**Hideyuki Yoshitsugu**

■Overview of Shade3D  
Being equipped with functions such as the high-precise modeling, layout, camera, light source, rendering, and animation for the architectural perspective, interior design, and product design. Shade3D can be utilized as the modeling tool for UC-win/Road. An academic tool supporting the programming education is released in the latest version.

**"Latest functions and future vision of Shade3D"**

Mr. Yoshitsugu explains the enhancement of cooperation with FORUM8's BIM/CIM corresponding products beginning from the 3D annotation and the future vision in addition to the latest functions including multi-language interface and the education programming tool. Practical modeling techniques and the latest case examples in each field will also be introduced.



The 7th Cloud Programming World Cup  
The 9th Student BIM & VR Design Contest on Cloud

**The 7th CPWC / The 9th VDWC**


**Open Final Judgment** 10:30-12:00  
**Award Ceremony** 16:00-17:00

The 7th CPWC is a programming skill competition of a cloud application. The 9th VDWC is a competition of advanced architecture and civil engineering design. Both of them are very international contests. You can see many works with full of ideas and students presentations at the final judgement.


Put your programming skills of 3DVR cloud applications to the test using FORUM8's Software Development Kit(SDK)

**THE 7TH Cloud Programming World Cup**


**Juries**




**Assoc. Prof. Tomohiro Fukuda**  
Head of judges / Graduate School of Engineering  
Osaka University



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



**Prof. Makoto Sato**  
Professor Emeritus of Tokyo Institute of Technology




**Mr. Yoann Pencreach**  
Senior Manager of Development group,  
FORUM8

Cloud-based design competition for civil engineering and construction works with BIM/CIM and VR!


**Virtual Design World Cup**

~OSAKA Dream Island, the Future City for Entertainment~


**Juries**




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



**Prof. Kostas Terzidis**  
Tongji University, China



**Prof. Masaru Minagawa**  
Faculty of Engineering, Dpt. of Urban and Civil Engineering / Vice President, Tokyo City Univ.



**Prof. David Tseng**  
National Chiao Tung University, Taiwan

**CPWC Award**

**World Cup Award**  
Award 300,000 yen  
Certificate. Crystal Cup

**Honorable Judge Award**  
Award 50,000 yen  
Certificate. Memorial Cup

**Nomination Award**  
Certificate. Memorials

**Host**

**Ms. Kaltida Tada**  
Born in Bangkok. MC speaking Japanese, English, and Thai. Model, narrator.



**VDWC Award**

**World Cup Award**  
Award 300,000 yen  
Certificate. Crystal Cup

**Semi Grand Prix**  
Award 100,000 yen  
Certificate. Semi Grand Prix Cup

**Honorable Judge Award**  
Award 50,000 yen  
Certificate. Memorials

**Nomination Award**  
Certificate. Memorials

**Presenter** Construction IT Journalist  
**Mr. Ryota leiri**

**The 5th Junior Software Seminar Award Ceremony** 17:00-17:30

Excellent works created in "Junior Software Seminar" are awarded.

**ジュニアソフトウェアセミナー**  
Junior Software Seminar



**Networking Party** 17:30-


**Venue** Trattoria Italia (Shinagawa Intercity B annex 1F)

We will hold a networking party for communication and information exchange. We are looking forward to having you attend.



**表技協** The 5th State of the Art Technologies in Expression Association /Latest Technology Art Session 13:15-14:30

**Special Lecture** 13:20-14:00



**Journalist**  
**Mr. Katsura Hattori**

■Profile  
Joined The Asahi Shimbun Company in 1978 and worked as a visiting researcher at the MIT Media Lab., a scientific journalist, and a magazine editor. Retired in 2016. He wrote and translated some books.

**"What is the information environment in next generation that VR is aiming at?"**

People started to know the VR technology when the VPL released the VR product in 1989. In this lecture, Mr. Katsura explains why VR was generated in the development history of computer and how people accepted it in order to reveal what this technology has aimed at originally and review what role it will take in the future information society.

**Greeting** 13:15-13:20



**Chairman for the State of the Art Technologies in Expression Association**  
**Mr. Akira Hasegawa**

■Profile  
A digital art creator born in 1947 in Komatsu, Ishikawa. Received many awards including Grand Prix of TVCM section by The Japan Commercial Broadcasters Association and ACC Award and more. He created thousands of company logos, TV programs, TV commercials, and advertisements.

**The 3rd Hagura Award** 14:00-14:30

To spread and promote the state-of-the-art expression technology, State of the Art Technologies in Expression Association established "Hagura Award". The purpose of this award is to contribute to enhancing the quality of expression technologies and spreading them to various fields by commending contributions to the society through works and activities utilizing the state of the art expression technologies regardless of field. The winners will be announced in this session.




The 2nd Hagura Award "Bowl de Planetarium" Faculty of Art and Design, University of Toyama

**VR** The 12th International VR Symposium 14:30-15:45

VR usage proposals has been presented and discussed at the International VR symposium by World16 consisting of architecture, civil engineering, and urban plan researchers around the world. So far, it has been held in Phoenix, the US (2008), Hakone, Japan (2009), Santa Barbara, the US (2010), Pisa, Italy (2011), Hawaii (2014), and Thessaloniki, Greece (2015), Osaka (2016), Boston MIT (2017), and New Zealand (2018). This time, Yoshihiro Kobayashi from Arizona State Univ. hosts the symposium as the place of research and development presentation of summer workshop in Paris, France in July 2019 and its application to software by the cooperation between Forum8 and World16.

**Driving Companion**


He suggested an artificial knowledge companion that uses the conversation generation API MUSE developed by AKA Intelligence and talks by using contexts such as driver's facial expression and behavior. By cooperating with UC-win/Road, he will develop a system to make the driver relaxed by talking to him/her when he/she feels tired, bored, or irritated while driving.



**Prof. Kostas Terzidis** College of Design and Innovation, Tongji University

**Development of LOR**

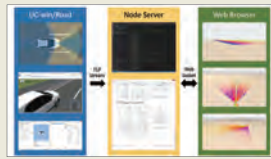
This system visualizes the differences between the hard reality seen from the driver's seat and the soft reality seen from the assistant driver's seat in the same VR space by using the shader. By extracting where others are seeing from data of their point of view, it enables to do experiments and investigation on how the driver recognizes positions where the driver should look at or objects evoking interests by applying the filter and special shader on a part of the projected image.



**Prof. Marcos Novac** University of California

**Automobile sensor simulation**

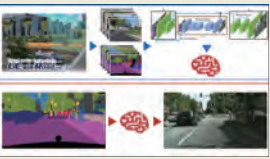
He suggests the system for experiments of sensor communication between several automobiles in the VR space. In the workshop, he developed the system that acquires travel data and Light Detection and Ranging (Lidar) data from other vehicles and transfer it in real-time by using the TCP and Web socket. It is expected that the system will be provided as a tool for researchers on the interactive autonomous driving.



**Prof. Matthew Swarts** Georgia Institute of Technology

**Recapture a city**

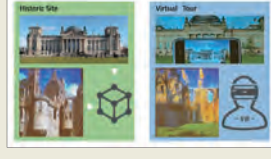
This project is about the auto-generation of virtual city images from colored segmentation images and videos by using Conditional Generative Adversarial Network (cGAN), which is one of the Generative Adversarial Network models. City models created with UC-win/Road used as learning data allow users to create driving videos instantly with sceneries of like Tokyo, Osaka, New York, and Paris from driving images divided in about 10 colors. In the presentation he will introduce the mechanism and the method of implement.



**Dr. Taro Narahara** New Jersey Institute of Technology

**Virtual tour around historic sites in UC-win/Road**


Historical structures are weathered as time goes but can be saved in the complete state by reproducing in CG. UC-win/Road and CG historic sites realizes the virtual tour around historic sites in VR that cannot be experienced in the real world.



**Dr. Amar Bennadji** Robert Gordon University

**Pantomime driving**

He developed a tool to connect functions such as moving camera positions and changing scenarios by not using the keyboard or controller but simple gestures when operating the VR system. This system is based on the CAVE system used in Victoria University and implements a variety visualization pattern including the movement while seeing side by combining UC-win/Road and Leap motion.



**Prof. Marc Aurel Schnabel** Victoria University of Wellington

**Introduction** Arizona State Univ.  
**Host** **Dr. Yoshihiro Kobayashi**

**Future development of FORUM8 products**  
Presentation about how FORUM8 and World16 will apply each project to the development of FORUM8 products including the concrete prospect and future vision.

**Executive officer and Development Senior Manager of FORUM8**  
**Pencreach Yoann**

-The 13th Design Conference IM&VR+i-Construction Session-  
Design Analysis **The 13th Design Conference**

10:00-15:15

With a view of BIM/CIM and i-Construction promoted by the MLIT, specialists in each field of seismic, disaster mitigation, and informational construction deliver speeches. In addition, FORUM8 staff introduces FORUM8 solutions using CIM and covering various phases such as performance design and maintenance and the activities based on the SDGs missions.

**Opening Address**

10:00-10:10

**Opening address of The 13th FORUM8 Design Festival**

CEO and President of FORUM8, **Yuji Ito**

**Special Lecture 1**

10:10-11:10



Leader of Mechatronics Team, Smart Technology Development Group, Production Engineering Technology Dept., Taisei Advanced Center of Technology, Taisei Corporation

**Mr. Hiroaki Aoki**

**Profile**

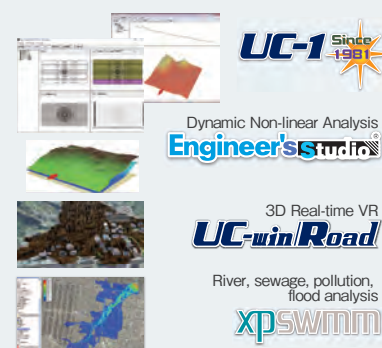
He joined Taisei Corporation in 1996 and engaged in the civil engineering construction, recovery construction from disaster, and unmanned construction. He took his current position of development related to the construction ICT in 2016.

**"Technology development of autonomous operation of construction machine by using UC-Win/Road"**

The autonomous operation technology for construction machine is one of the technologies that is expected to be established as soon as possible since it is easy to image usage scenes of the technology at construction sites in preparation for the reduction of the working population in the near future and can develop in business usages. Simulation technologies using UC-win/Road can test the algorithm of autonomous driving at any place and with no real machinery. This is an important technology that can accelerate the automation of construction machinery and is essential for the technical development of Taisei Corporation. In this lecture, Mr. Aoki introduces the examples of the technology.

**Presentation 1**

11:10-12:00



**"IM&VR solution - Utilization of design data and correspondence to the latest standard of BIM/CIM -"**

Masakichi Yanagi, leader of FORUM8 UC-1 development Group Analysis support team

FORUM8 is providing IM (Information Modeling) & VR solutions corresponding to the BIM/CIM promoted in the i-Construction that is aiming at improvement of the productivity at construction sites. In this presentation, Mr. Yanagi introduces case examples of the correspondence to the latest standards of BIM/CIM; the construction simulation (4D simulation) using VR Design Studio UC-win/Road and the 3DCG software Shade3D, the utilization of design data cooperated with 3DCAD software to the integrated model, and the utilization of data linkage between UC-1 design programs and addition/accounting cloud system. He also explains the UC-1 Cloud auto-design series that FORUM8 newly released and can design automatically via web application.

**Special Lecture 2**

13:15-14:15



MIT Comparative Media Studies Program  
Creative Director, Education Arcade and the Game Lab.

**Prof. Scot Osterweil**

**Profile**

He is the game designer being active in the industry and education fields and has created "Zoombinis" (mathematics, logics), "Vanished: The MIT/Smithsonian Game" (environment), "Labyrinth" (mathematics), "Kids Survey Network" (data, statistics), "Caduceus" (medical), and "iCue" (history). He is also a founder and creative director of Learning Games Network (www.learninggamesnetwork.org) and leads the Bill & Melinda Gates Foundation's Language Learning Initiative (ESL). "Quandary" designed by him won the Game of the Year given by Games for Change in 2013. He co-authored the book "Resonant Games (MIT Press)" and serves as the consultant on the Amazon TV series "Tumbleleaf" that won the Emmy Award.

**"Play the future"**

Although to purely consider the game as leisure is fascinating, it is actually a strong tool for thinking, planning, and creating. From the live action RPG, board game, Augmented Reality (AR) to Virtual Reality (VR), the MIT Game Lab has sought how to understand the world through playing and how to convince and give influences on others by utilizing the game. In this lecture, he explains his activities that applying games to education and skill training.

**-Result Announcement and Award Ceremony-**

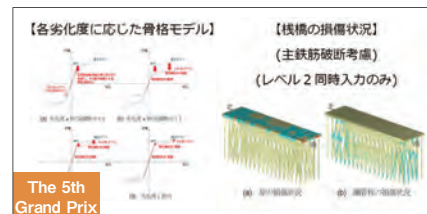
**The 6th National Resilience Design Award**



15:30-17:00

"National Resilience Design Award" is the place to provide information and to improve skills by assembling concrete cases and results which is helping to strengthen the national land. Various brilliant works for strengthening of national land in the field of structural analysis (civil engineering and construction), ground and water engineering, and disaster prevention will be introduced.

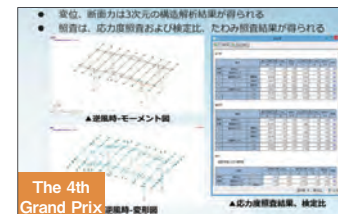
**Past awarded works**



**"Applying the residual strength evaluation method using degradation level check to jetties"**

- Proposal of a new strength evaluation method using a loading experiment and general regular check results -

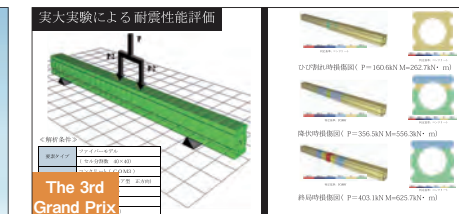
Institute of Technology,  
PENTA-OCEAN CONSTRUCTION CO., LTD.



**"Design of solar cell support structure"**

- Detail design by 3D skeleton structure analysis -

Next Energy & Resources Co., Ltd.



**"High seismic retrofitting of freestanding retaining wall by using PC-Wall and reasonable performance verification type seismic design method"**

- Actual-size experiment and verification by using high performance FEM fiber model -

Nippon Concrete Industries Co., Ltd.

**Juries**

**Prof. Hiromichi Yoshikawa**  
Chief of the Judging committee  
Professor Emeritus of Tokyo City University

**Prof. Masaru Morita**  
Urban Environmental Engineering Laboratory, Civil Engineering Department, Shibaura Institute of Technology

**Prof. Akihiko Wakai**  
Science and Engineering Department, Gunma University

**Award**

**Grand Prix**  
Certificate, Trophy  
Critea high-spec notebook  
Portable SSD  
Amazon gift card

**Excellent Award**  
Certificate, Altair mobile notebook  
Amazon gift card

**Honorable Judge Award**  
Certificate, Action camera  
Amazon gift card

**Nomination Award**  
Certificate, Book card

\*PCs are provided by THIRDWAVE Corporation.

**Usable product**

- FEM analysis**
  - Engineer's Studio® dynamic non-linear analysis of 3D laminated plate / cable
  - FEMLEEG Comprehensive finite element method analysis system
  - WCOMD Studio
  - Geotechnical analysis (GeoFEAS Flow3D / GeoFEAS2D / Dynamic effective stress analysis for ground (UWLC) 3D slope stability analysis LEM3D / 2D seepage analysis (VGFlow))
- UC-1 series**
  - Structural analysis, bridge superstructure, bridge substructure, foundation design, temporary work design, road work design, water work design
  - xpswmm
- Analysis support service**

**Presentation 2** 14:15-15:15

**"FORUM8 FEM analysis solution"**

Brent Fleming, Director in charge of development, FORUM8  
Hiroaki Sano, Leader of FEMLEEG / Geotechnical Team, System Development Group, FORUM8

A lot of highways are used over 30 years and require many repair and reinforcement. The structural analysis software Engineer's Studio® that can handle the investigation of current state, performance design, and seismic reinforcement is utilized in various cases. FORUM8 released the Geo Engineer's Studio Ver.2 as a geotechnical analysis program, and it corresponds to the elasto-plastic analysis, liquefaction, responding seismic method, and river seismic standard. In this lecture, he introduces the structure and geotechnical FEM analysis solutions and the analysis case examples using them including the comprehensive FEM analysis software FEMLEEG that is utilized for stress analysis in a variety of fields.

**"See you again next year"** 17:00-

**Venue FORUM8 Seminar room**

Next Design Festival is already scheduled from 18 to 20 November 2020. After all Day3 sessions are finished, a farewell party will be held in gratitude for the guests, hoping the reunion in next year. We are looking forward to having you attend.

**Design Festival 2020 is already planned to be held!**

**14th FORUM8 DESIGN FESTIVAL 2020-3DAYS+EVE**  
All about FORUM8 & Products.

**2020.11.18 wed - 20 Fri / EVE 11.17 Tue**

**Special event for premium users**

**Technical tour**  
Autumn leaves in Yamanashi / Sophisticated art and Fuji Gotemba Outlet store

**Sight seeing**




Ide Sake brewery



Lake Kawaguchiko Sightseeing Boat "Ensoleillé"

Candidates: Participants of Design Festival Day1, Day2, Day3  
Non-SPU users need to pay the participation fee.

**Golf**  
Camellia Hills Country Club

**Golf**



Camellia Hills Country Club <http://www.camelliahills.com>  
265 Otake, Sodegaura, Chiba 299-0221 TEL 0438-75-4111  
Starts at 9:24  
(Departs Parking lot of Shinagawa Intercity A at 7:00)  
Candidates: Participants of Design Festival Day1, Day2, Day3  
Non-SPU users need to pay the participation fee.

**Book Information**

Books published by FORUM8  
[www.forum8.co.jp/product/book.htm](http://www.forum8.co.jp/product/book.htm)



**100 Greatest Bridge**

NPO  
Civil Machizukuri  
Station



**Shade3D Official Guidebook 2020**

FORUM8  
Shade3D Development Group



**Expression Technology Test Official guidebook for data processing**

Kazuki Ishikawa  
(Part-time instructor, Daido University)



**Expression Technology Test Official guidebook for database**



"Learning information through VR"

Tatsuoki Inagaki



"System Development for Super Smart Society"

Toshiro Mise



"Small Talk about FEM"

I.Math essay  
II.Miscellany essay  
Yoshiaki Harada



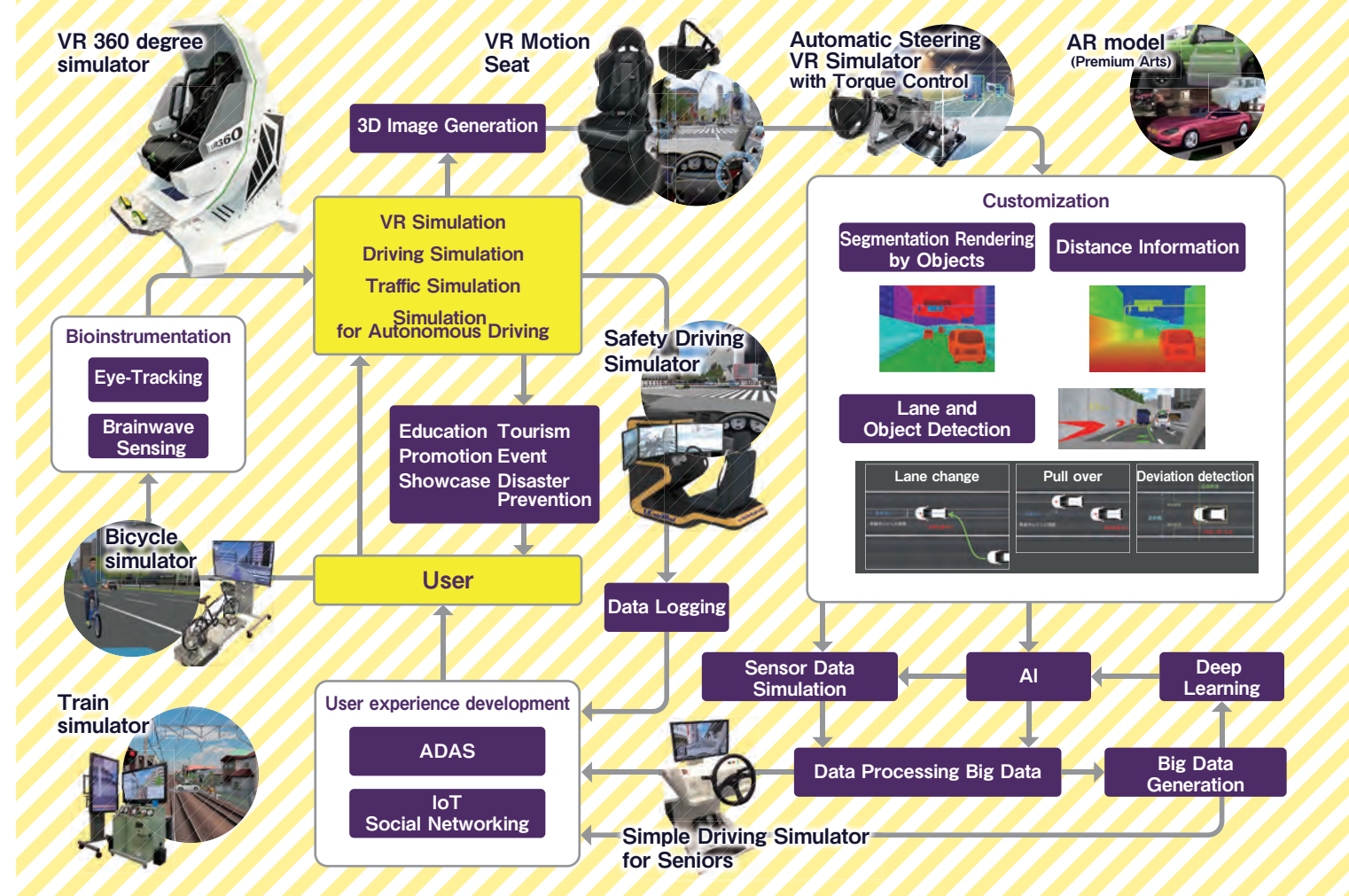
**Exhibited Systems**

Leading-edge VR linkage systems including driving simulators are displayed and demonstrated.

Venue Foyer



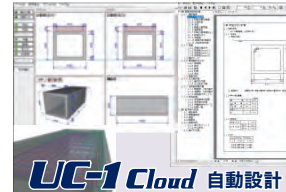


**Acceleration of autonomous driving and new mobility R&D using VR Simulations**

**AUTONOMOUS DRIVING**



**IM&VR Solution Demo corner**

**Information Modeling & Virtual Reality**

<p><b>Engineer's Studio®</b> 3D dynamic non-linear analysis</p> 	<p><b>UC-win/Road</b> 3D VR software</p> 	<p><b>Auto design BOX Culvert</b> UC-1 series</p> 	<p><b>Shade3D</b> Made-in-Japan comprehensive 3DCG software</p> 	<p><b>Construction Accounting</b> Cloud accounting software series</p> 
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11/11 MON - 12 TUE

Day1 13:00 ~ 17:30 / Day2 9:30 ~ 17:30

**UC-win/Road Expert Training Seminar**



UC-win/Road Expert Training Seminar is a seminar for dealers who treat UC-win/Road and consultants who suggest VR business by using UC-win/Road.

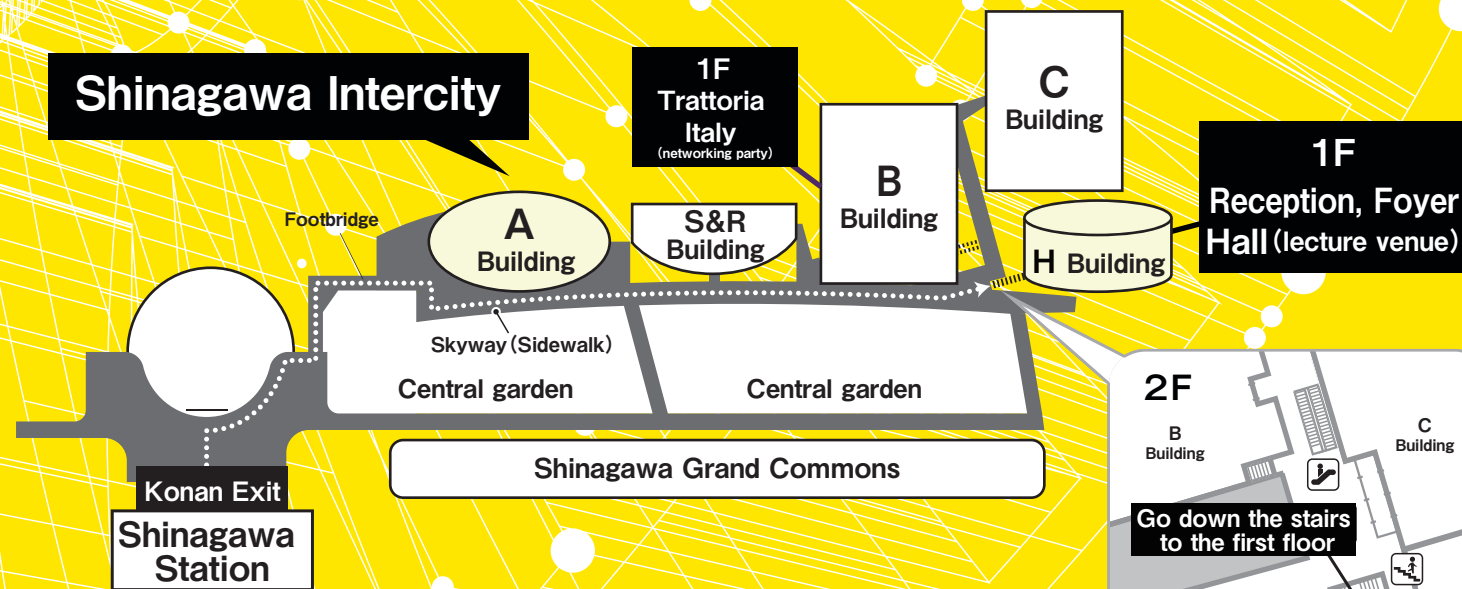
**Fee** Free **Date** Mon. Nov. 11 13:00-17:30  
Tue. Nov. 12 9:30-17:30  
**Venue** FORUM8 Tokyo Head Office Seminar room

**Seminar overview / How to apply**

Please contact your contact person of FORUM8 staff



# MAP -Venue-

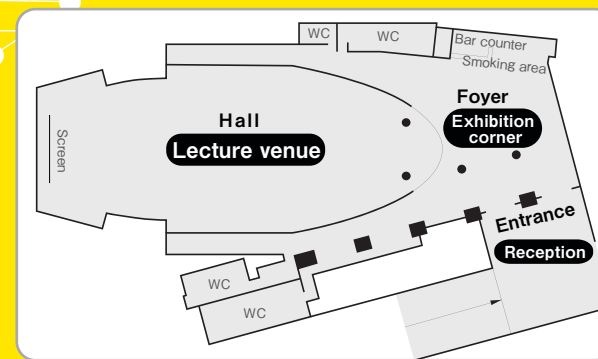


## By train (JR line and Keikyu) and Shinkansen

- ① Take a train to Shinagawa Station of JR line or Keikyu line and proceed to Konan Exit
- ② Go out the Konan exit to the right to the pedestrian bridge that leads directly to the Shinagawa Intercity 2F Skyway (Sidewalk).
- ③ Go out the Konan exit to the right to the pedestrian bridge that leads directly to the Shinagawa Intercity 2F Skyway (Sidewalk). As soon as you cross the pedestrian bridge, there is an oval building in Shinagawa Intercity A. You can see the name of the Shinagawa Intercity on the front wall. Go straight to the skyway.
- ④ Proceed to the right side of the building, go through the automatic door to the Central Garden Skyway. Walk for a while and you will see the hall building (H building). The first floor is the reception, foyer and hall.

## Venue

**Shinagawa Intercity  
H Building Hall (1F)**



**FORUM8 Co., Ltd.**  
**FORUM 8**



<p>Tokyo Head office 2-15-1 Shinagawa Intercity Building A 21F Konan Minato-ku Tokyo 108-6021 Tel: +81-3-6894-1888 Fax: +81-3-6894-3888</p> <p>Osaka office Tel: +81-6-6882-2888 Fax: +81-6-6882-2889 Email: 8osaka@forum8.co.jp</p> <p>Fukuoka office Tel: +81-92-289-1880 Fax: +81-92-289-1885 Email: 8fuku@forum8.co.jp</p> <p>Sapporo office Tel: +81-11-806-1888 Fax: +81-11-806-1889 Email: 8sapporo@forum8.co.jp</p> <p>Nagoya showroom Tel: +81-52-688-6888 Fax: +81-52-688-7888 Email: 8nagoya@forum8.co.jp</p> <p>Sendai office Tel: +81-22-208-5588 Fax: +81-22-208-5590 Email: 8sendai@forum8.co.jp</p> <p>Kanazawa office Tel: +81-76-254-1888 Fax: +81-76-255-3888 Email: 8kanazawa@forum8.co.jp</p> <p>Iwate office Tel: +81-19-694-1888 Fax: +81-19-694-1888 Email: 8iwate@forum8.co.jp</p> <p>Miyazaki office Tel: +81-985-58-1888 Fax: +81-985-55-3027 Email: 8miyazaki@forum8.co.jp</p> <p>Okinawa office Tel: +81-98-951-1888 Fax: +81-98-951-1889 Email: 8okinawa@forum8.co.jp</p> <p>Super computer cloud Kobe Tel: +81-78-304-4885 Fax: +81-78-304-4884 Email: 8kobe@forum8.co.jp</p>	<p>Shanghai (China) Tel: +86-21-6859-9898 Fax: +86-21-6859-9897 Email: info-china@forum8.com</p> <p>Qingdao (China) Tel: +86-532-66729637 Fax: +86-532-66729639 Email: info-qingdao@forum8.com</p> <p>Taipei (Taipei) Tel: +886-2-2655-8375 Fax: +886-2-2655-8325 Email: info-taiwan@forum8.com</p> <p>Hanoi (Vietnam) Tel: +84-24-3244-4058 Email: dat.vu@forum8.com</p> <p>Yangon (Myanmar) Tel: +95-01-925-5060 Fax: +95-01-925-5062 Email: yangon@forum8.com</p> <p>London The Leadenhall Building Level 30, 122 Leadenhall Street, London EC3V 4AB, United Kingdom Tel: +44-0-203-753-5391 Email: brendan@forum8.com</p> <p>Sydney Tel: +61-02-9130-1448 Fax: +61-02-9130-1448 Email: anita@forum8.com</p> <p>Korea Tel: +82-031-426-1884 Fax: +82-031-426-1885 Email: dhkim@forum8.com</p>
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