



Proposal for

# 16th World Conference on Earthquake Engineering

**Proposed Venue: PACIFICO Yokohama**  
**Proposed Dates: October 9 - 14, 2016**



**Yokohama / Tokyo, JAPAN**

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## Japan: The Perfect Host of the 16WCEE

### 1. Incomparable Amount of Past Experiences and Future Measures

Japan's incomparable disaster experiences - the 2011 East Japan (Tohoku) earthquake, the 1995 Kobe earthquake and many others - have produced the most comprehensive engineering and social remedies in the world, covering an extremely wide range of seismic hazards and recovery patterns.

### 2. Strong Responsibility and Best Timing for Knowledge Sharing with the World

Japan has strong responsibility to share such experience with the world earthquake engineering communities through special sessions consisting of international researchers. 2016 will be the most appropriate year in terms of information maturity and volume.

### 3. Unique Programs to Promote Worldwide Network toward the 16WCEE

International collaborations, blind analysis competition, and young researchers' competition will be organized for periods of over two years, with final results to be reported at the special sessions during the 16WCEE. Six Japanese academic societies with total of 140,000 members are prepared to support these, together with the IAEE member societies.

### 4. Unparalleled Quality of Site Tours and On-site Sessions

In relation to the special sessions and other programs, more than ten seismic project site tours and on-site sessions will be on offer. The one- or two-day tours typically provide most instructive information on Japan's past experiences and future measures to promote full exchange of discussions.

### 5. Enhanced Program with New Presentation, Paper Viewing, and Discussion Styles

Various issues stemming from the growing size of the conference will be resolved by not only adding the above new features, but also improving the traditional format of the WCEE program. New schemes for presentations, paper viewing, and discussions will be introduced.

### 6. Lower Total Cost, World's Top-class Safety, and Convenience

The total cost of registration, accommodation, local transportation and meals for participants will be comparatively low. Japan's crime-rate, which is among the lowest in the world, a wide range of hotels (from luxury to budget), and well-developed inexpensive transport system make Yokohama an exceptionally safe and convenient destination with lower total cost.

### 7. World-class Convention City with True Sense of Hospitality

Yokohama, with one of the largest convention complexes in the world, has extensive experience of hosting prestigious international conferences. As hospitality and efficiency are deeply imbued in Japanese culture, the 16WCEE participants can look forward to a warm welcome and enjoy a superbly organized conference.

### 8. Attractive Places to Visit, Cool Things to See

Japan is a beautiful country offering a unique mixture of traditional and modern attractions. Within Yokohama, or in Kamakura and Tokyo (both 30 min. away), there are numerous interesting sights to visit. Mt. Fuji and Hakone (1.5 hrs.), Nikko (2.5 hrs.) and Kyoto (2.5 hrs.) are also full of must-see places.

**Japan is fully committed to support IAEE through  
Kizuna: Tying the World's Earthquake Engineering Communities.**

## Invitation from Japan Bid Committee



**Japan Association for Earthquake Engineering**

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Tel: +81-3-5730-2831, Fax: +81-3-5730-2830  
http://www.jaee.gr.jp/  
E-mail: office@general.jaee.gr.jp



August 15, 2012

Professor Polat Gulkan  
President, International Association for Earthquake Engineering (IAEE)

Dear Professor Gulkan,

On behalf of the Japan Bid Committee and Japan Association for Earthquake Engineering, I am writing this letter to express our strong desire to host the 16th World Conference on Earthquake Engineering in Yokohama, Japan in October 2016.

Due to rapid population growth and urbanization, seismic risks of societies have increased considerably worldwide, and we strongly feel that the 16WCEE must be organized to meet these challenges. We propose not only to offer excellent service of realizing the traditional functions of the conference, but also to add new aspects to the 16WCEE program. Sharing worldwide experiences of deep sorrow caused by seismic disasters, recovery and rebuilding, and challenges for future earthquakes is extremely important in the earthquake engineering. Therefore, this largest earthquake conference held every four years should be organized to fully utilize the rare opportunity for the world's experts to work together on the pressing seismic issues threatening our societies.

We offer innovative program enhancements including:

- 1) Special sessions prepared two and half years in advance, possibly with analysis of and solution proposal for common needs, and final presentation at the 16WCEE;
- 2) International collaborations prepared two and half years in advance, with pre-conference workshops and final presentation at the 16WCEE;
- 3) Multiple blind analysis contests on ground motions, tsunami, full-scale experiments and other subjects, opening two years in advance with announcement of winners at the 16WCEE;
- 4) Young researchers' sessions with peer-reviewed awards covering registration fees and travel expenses thereby promoting international networking activities;
- 5) Pre-conference training sessions for participants from developing countries, covering registration fees and travel expenses, and;
- 6) More than ten seismic project site tours and on-site sessions, most of them linked to the special sessions, international collaborations or blind analysis contests.

We will plan these activities by coordinating with the IAEE members and international earthquake engineering community. Japan is one of the most earthquake-prone countries on the earth, and experienced many devastating earthquakes including two recent catastrophic ones, the 1995 Kobe earthquake and the 2011 Great East Japan (Tohoku) earthquake. In terms of source mechanism, pattern of disaster, and influence to society, Japan learned many lessons which should be shared with the global earthquake engineering community.

The venue will be in the center of the most beautiful harbor in Japan, Yokohama, located 25 km south-west of Tokyo. Yokohama is featuring the largest conference facility in the country, convenient access from abroad, the best of both traditional and modern cultures, many inexpensive and clean hotels, and very safe environment.

I would really appreciate if you could kindly consider our proposal for the 16WCEE.

Best regards,

Kazuhiko Kawashima  
National Delegate of Japan for International Association for Earthquake Engineering  
Chairman, the Japan Bid Committee for the 16WCEE  
President, Japan Association for Earthquake Engineering

## The Japan Bid Committee for the 16WCEE

**Japan Association for Earthquake Engineering  
Seismological Society of Japan  
Architectural Institute of Japan  
Japan Society of Civil Engineers  
Geotechnical Society of Japan  
Japan Association of Mechanical Engineers**

Kazuhiko Kawashima (Chair), Professor, Tokyo Institute of Technology  
Kazuhiko Kasai (Co-Chair), Professor, Tokyo Institute of Technology

Shigeru Fujimoto, Professor, Tokyo City University  
Satoshi Fujita, Professor, Tokyo Denki University  
Yoshiaki Hisada, Professor, Kogakuin University  
Kojiro Irikura, Professor, Aichi Institute of Technology  
Masaru Ito, Vice President, Japan Structural Consultants Association  
Toshimi Kabeyasawa, Professor, The University of Tokyo  
Hiroyuki Kimata, Japan Federation of Construction Contractors  
Masayuki Kohiyama, Associate Professor, Keio University  
Kazuki Koketsu, Professor, The University of Tokyo  
Kazuo Konagai, Professor, The University of Tokyo  
Kimihiro Meguro, Professor, The University of Tokyo  
Saburoh Midorikawa, Professor, Tokyo Institute of Technology  
Yoshiaki Nakano, Professor, The University of Tokyo  
Taiki Saito, Chief Research Engineer, Building Research Institute  
Yoshikazu Sawamoto, Japan Federation of Construction Contractors  
Hitoshi Shiohara, Associate Professor, The University of Tokyo  
Akira Sone, Professor, Kyoto Institute of Technology  
Yoshikazu Takahashi, Associate Professor, Kyoto University  
Kohji Tokimatsu, Professor, Tokyo Institute of Technology  
Ikuo Towhata, Professor, The University of Tokyo  
Shigeki Unjo, Research Coordinator, National Institute for Land and Infrastructure Management  
Akira Wada, President, Architectural Institute of Japan  
Kazue Wakamatsu, Professor, Kanto Gakuin University  
Fumio Yamazaki, Professor, Chiba University  
Toshiaki Yokoi, Chief Research Scientist, Building Research Institute

### Sponsoring Organizations:

Japan Federation of Construction Contractors  
Japan Structural Consultants Association

### Supporting Organizations:

Ministry of Education, Culture, Sports, Science and Technology  
Ministry of Land, Infrastructure, Transport and Tourism  
Kanagawa Prefecture  
City of Yokohama  
Japan Tourism Agency  
Japan National Tourism Organization  
Yokohama Convention & Visitors Bureau  
PACIFICO Yokohama

## Invitation Letter from Ministry of Education, Culture, Sports, Science and Technology, Japan



August 17, 2012

Professor Polat Gulkan  
President, International Association for Earthquake Engineering



Dear Professor Gulkan,

I am extremely pleased that Yokohama is being considered as a candidate city for hosting the 16th World Conference on Earthquake Engineering in 2016.

As you may know, in Japan, very advanced functions of modern life are concentrated in Japanese cities, while, at the same time, local areas are blessed with abundant nature and water. In almost all areas of Japan, there are not only scenic landscapes interwoven with nature clearly changing with the four seasons, but also traditional culture and the arts, which have distinctively developed and been maintained within Japan's long history, and refined and delicious local cuisines. I believe that the conference sponsors and participants will certainly find their stay in Japan enjoyable and fulfilling. Moreover, since the public peace and security situation in Japan is very good, we can offer conference participants a safe and secure stay.

From early on, the candidate city of Yokohama has been a gateway into Japan, and it has developed a rich international flavor through its long history of absorbing various influences from abroad. Moreover, as a city with a strong tourism infrastructure, it has numerous tourism attractions and first-class hotels and accommodations. Yokohama is also quite near Tokyo, Japan's capital, and its transportation system is very convenient. This very developed environment will surely make participants' stay in Japan an even more pleasant and culturally-rewarding experience.

As you are aware, Japan is located in a very active earthquake region, it being said that some 20% of the world's earthquakes occur in Japan. An enormous amount of damage was caused by the earthquake and tsunami that hit Japan last year on March 11, but the Japanese people have been working together to rebuild from the earthquake and tsunami disaster. These experiences can provide numerous topics and points for your discussions, and I think they will serve to make your quadrennial conference an even more active and fruitful one.

The Japan Association for Earthquake Engineering, which is actively involved in technology development and education in the field of earthquake engineering, plays a major role in the implementation of Japan's policy and measures for earthquake engineering research, including research and the diffusion of the results of that research for finding cross-sectoral solutions to problems related to earthquake engineering, the holding of regular research presentation meetings and workshops, and the sponsoring of lectures and training related to earthquake engineering and earthquake disaster prevention. I believe that for the Japan Association for Earthquake Engineering, which is highly trusted and provides fundamental support for Japan's earthquake-related policies, to become the host organization on the Japanese side can greatly add to the success of the conference.

Holding the conference in Yokohama and inviting the world's leading researchers and engineers to meet under one roof and engage in lively discussions on earthquake engineering research, while teaching and learning about the experiences and lessons from the Great East Japan Earthquake disaster, will further promote the recovery from the disaster and contribute to the enhancement of earthquake disaster prevention capabilities around the world. I sincerely look forward to having the opportunity to welcome all of you in Japan.

Sincerely yours,

Hirofumi Hirano  
Minister of Education, Culture, Sports, Science and Technology



## Invitation Letter from Ministry of Land, Infrastructure, Transport and Tourism



August 27, 2012

Professor Polat Gülkan  
President, International Association for Earthquake Engineering



Dear Prof. Gülkan,

I am very pleased to express my wholehearted support for the bid of Yokohama to host the 16th World Conference on Earthquake Engineering.

Japan is situated in an active earthquake zone and has suffered from numerous earthquakes over the years, including the Great East Japan Earthquake which struck in 2011. Our advanced technology for mitigating earthquake damage makes us a role model for other countries. This conference would provide Japan with a chance to share its excellent structural technology with the world and contribute greatly to the development of a safe and secure global society.

Japan's candidate city of Yokohama is an international convention city recognized worldwide for its facilities and track record of large conferences, including the Asia-Pacific Economic Cooperation (APEC) Summit in November 2010. It is one of Japan's major metropolises with a highly established concentration of administrative, economic, and cultural functions. Furthermore, Yokohama provides excellent access to Japan's premier tourist attractions via our country's highly developed transportation network. I believe that Yokohama will satisfy all those who participate in the conference.

Yokohama's candidacy to host the conference is a source of great excitement, and I look forward to welcoming everyone to Yokohama in 2016.

Sincerely yours,

Yuichiro Hata  
Minister of Land, Infrastructure, Transport and Tourism

## Invitation Letter from Kanagawa Prefectural Government



神奈川県 KANAGAWA  
PREFECTURAL GOVERNMENT

1, Nihon-Odori, Naka-ku  
Yokohama 231-8588, Japan  
Phone:045-210-1111

August 13, 2012



Professor Polat Gülkan  
President  
International Association for Earthquake Engineering

Dear Prof. Gülkan,

I am writing this letter wishing that your esteemed organization will select Yokohama City in Kanagawa Prefecture, Japan, as the venue of the "16th World Conference on Earthquake Engineering" (WCEE).

Located adjacent to the capital city of Tokyo, Kanagawa Prefecture has been playing the central role in Japan's political, economic and cultural activities. In recent years, many research institutes of enterprises and universities have been located in Kanagawa, making it a highly dynamic region with a variety of human resources in different fields.

Yokohama City, the capital city of the prefecture, is a cosmopolitan city which has the fine convention facilities and many hotels, and boasts a great access to public transportation. It is exactly suited for a venue of large-scale international conferences. The city held numerous conferences in the past. I would also like to note that APEC Economic Leaders' Meeting was held in the city in November 2010.

Japan is a country of many earthquakes. The Great East Japan Earthquake which hit us in 2011 cast a grave impact on the life of the citizens. However, owing to the warm support from all over the world, we are continuing our efforts for reconstruction.

I understand that the members of WCEE are engaged in activities of wide range of researches on earthquake engineering and establishment of international quake-resistance standard. I strongly wish that you will decide to hold the Conference in 2016 in Yokohama City, Kanagawa Prefecture, and the members will gather here to develop international academic exchanges which will contribute to reduction of earthquake damages in the future. I am confident that the Conference in Yokohama will sure to live up to your expectations.

Kanagawa Prefecture also has a variety of sightseeing spots. There are the ancient capital of Kamakura with long history and culture, which is formally nominated as a world heritage site by the Japanese government, and the internationally renowned scenic hot spring resort of Hakone. The congress participants will be able to experience various attractions of Kanagawa. When the Conference is held in Yokohama, we would like to fully assist your organization in making the Conference successful.

We are sincerely looking forward to welcoming you to Yokohama and Kanagawa.

Sincerely,

Yuji Kuroiwa  
Governor of Kanagawa Prefecture



## Invitation Letter from City of Yokohama



July 31, 2012

Professor Polat Gülkan  
President, International Association for Earthquake Engineering

Dear Professor Polat Gülkan,

I feel extremely privileged and honored that Yokohama has been selected as a possible site for the 16th World Conference on Earthquake Engineering. I strongly hope that Yokohama will be chosen as the site for 16WCEE.

I would like to express my sincere gratitude toward the various countries of the world that provided Japan with kind support following the Great East Japan Earthquake on March 11, 2011. Immediately following the disaster, the City of Yokohama also dispatched personnel to the affected areas to provide wide-reaching support to the victims in areas ranging from medical and welfare support to restoration of the infrastructure.

After the Great East Japan Earthquake, interest here in Yokohama regarding disaster prevention and disaster mitigation increased greatly, and earthquake-proofing of buildings and revision of disaster-prevention plans have been proceeding at an accelerated pace.

Furthermore, Yokohama was damaged by the 1923 Great Kanto Earthquake, but it managed to recover from the catastrophe. Yamashita Park, located in the central part of the city and built on reclaimed land along the seacoast using rubble from the disaster, is widely known as a recovery symbol of the 1923 Earthquake. Even today, it draws 5 million visitors per year and serves as one of Yokohama's leading sightseeing spots. I believe that the discussion and the exchanges of information will be lively and fruitful if your Association does decide to hold 16WCEE in Japan.

Yokohama is accessible from both Haneda and Narita Airports, providing superb access for overseas visitors. The city's domestic connections are also excellent, with a high-speed Shinkansen (bullet train) station in the city providing seamless connections to Kyoto and Osaka.

The City of Yokohama itself is widely known as a very safe city, and it has gained high reputation by hosting the Asia-Pacific Economic Cooperation (APEC) meeting in 2010, the 10th Annual Meeting of the International Society for Stem Cell Research in 2012, and numerous other large-scale international conventions.

The proposed venue is located in the Yokohama harbor-front district, an area lit up by the beautiful nighttime scenery of its sky-scrapers centering on Landmark Tower (Japan's tallest building). You can relish the cool sea breeze while shopping and fully indulging in Japanese as well as other cuisine from around the world. In addition, visitors can also enjoy themselves after conference sessions by taking a short trip out to Yokohama's Sankeien Garden, where historic buildings blend harmoniously with the natural setting throughout the four seasons, or by visiting one of the many other diverse tourist attractions concentrated in the city.

I have no doubt that Yokohama, a safe and comfortable port city that strikes a balance between Japanese tradition and internationalism, and whose citizens treat all visitors with gracious hospitality, will prove to be the ideal destination for all participants in 16WCEE.

On behalf of the citizens of Yokohama, I invite you to our city and I sincerely hope that you will choose Yokohama as the site for 16WCEE.

Yours sincerely,

Fumiko Hayashi  
Mayor, City of Yokohama

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City of Yokohama  
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1-1 Minato-cho, Naka-ku,  
Yokohama 231-0017 Japan

## Why Japan?

As the world's population grows and its urbanization progresses rapidly, seismic risks are significantly increasing on a global level. The Japan Bid Committee for the 16th World Conference on Earthquake Engineering (16WCEE) believes that collective knowledge and initiatives to confront such pressing issues threatening our societies are in greater demand today than ever before.

The WCEE, the world's largest conference in this field assembling the international experts every four years, should be programmed to address the above issues. The Committee feels that, by closely cooperating with the IAEE (International Association for Earthquake Engineering) and sharing the country's past experience and future countermeasures with the world's engineering communities, such objectives can be effectively pursued at the 16WCEE.

Japan is one of the most earthquake-prone places on earth, accounting for over 10% of all devastating earthquakes worldwide, including the 1995 Kobe earthquake and the more recent 2011 East Japan (Tohoku) earthquake. While the country is in a mature phase of recovery from the former, the restoration for the areas affected by the latter has just begun. Moreover, Japan is now under a serious threat of scenario catastrophic quakes, and is quickly mapping out all possible mitigation strategies. The country's lessons learned on source mechanism, pattern of disaster, and influence to society, as well as experience of deep sorrow due to seismic disasters, recovery and rebuilding, and challenges for future seismic attacks would be extremely relevant and useful for

### Seismic Disasters in Japan

- ❶ Failure of foreseeing megathrust (e.g. 2004 Sumatra & 2011 Tohoku) earthquakes
- ❷ High black tsunami overpowering embankment, 2011 Tohoku earthquake
- ❸ Houses on fire after being flooded by tsunami, 2011 Tohoku earthquake
- ❹ Post-quake fire, heat wind & tornado killing 38,000 evacuees in a single open space of 68,000 square meters in central Tokyo, 1923 Great Kanto earthquake
- ❺ Liquefaction and sand boiling, largest scale in history, 2011 Tohoku earthquake
- ❻ Meltdown and explosion, Fukushima nuclear disaster after 2011 Tohoku earthquake
- ❼ Collapse of 18-span continuous bridge built on the 1964 code, 1995 Kobe earthquake
- ❽ Wide-spread land-slide affecting roads and residential areas, 2011 Tohoku earthquake
- ❾ Building dampers and displacement limiters damaged, 2011 Tohoku earthquake
- ❿ Collapsed building and rescue of survivors, 1995 Kobe earthquake



many other seismic-prone countries in the world.

The Committee and its sponsors and supporters in the academic, professional and governmental fields are confident that the country's researchers can make a tremendous contribution to their IAEE colleagues at the 16WCEE. To enhance the role of WCEE as mentioned earlier, the new ideas are proposed as follows (see details on later pages):

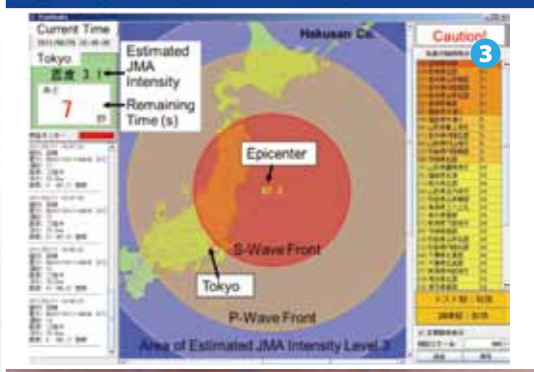
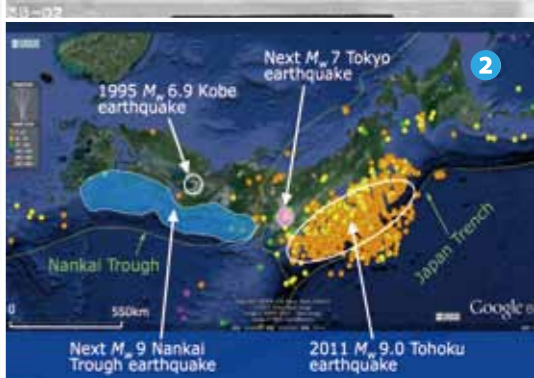
- Improving the traditional format of the WCEE program by adopting new presentation schemes
- Adding many new special features to the WCEE program to reflect current and pressing issues

The conference venue will be in the center of the most beautiful harbor in Japan, Yokohama, located at 25 km south-west of Tokyo. Incidentally, it was the 1880 Yokohama earthquake (M5.9) which led to the establishment of the "Seismological Society" in the same year. Led by John Milne, a distinguished British geologist and mining engineer, it was the first international earthquake association.

Hospitality, efficiency and superb organization are all deeply imbued in Japanese culture. The Committee is determined to make the 16WCEE a milestone in the IAEE's history and an academic and social platform which will produce many opportunities of practical collaboration for the future of earthquake engineering.

### Challenges for Future Earthquakes

- ❶ John Milne & his wife Tone; Japan will celebrate his 100 year memorial in 2013.
- ❷ Past and future (e.g. Mw 9 Nankai and Mw 7 Tokyo) damaging earthquakes
- ❸ Early warning system (performed well in Tokyo during 2011 Tohoku earthquake)
- ❹ Base isolator experimented for a large deformation simulating a major earthquake
- ❺ Reconstruction of collapsed 18-span continuous bridge (see ❷ on left page)
- ❻ Comparative full-scale test of old house & retrofitted house by using the world's largest shake-table at E-Defense
- ❼ Dampers typically used for seismic protection of major buildings
- ❽ The world's tallest tower, "Tokyo SkyTree," construction completed in 2012
- ❾ Numerous super-tall buildings in Tokyo expecting a major earthquake
- ❿ Community organizational meeting to prepare for earthquakes in Tokyo area



## Host City

### YOKOHAMA, the Harbor City of Greater Tokyo

Facing the Tokyo Bay, Yokohama is a tranquil yet exciting harbor city located only half an hour away from Japan's capital, Tokyo. It is the first harbor opened to the world as the entrance to the country. Since then, Yokohama has acquired new cultures and ideas from foreign lands and introduced to Japan its many "firsts," thereby earning its title as the birthplace of the country's modern culture. Now, it has grown to become the second largest city in the nation, with a population of over 3.6 million.

As Japan's most international city, Yokohama has hosted numerous prestigious international conferences and events. The participants of the 16thWCEE will enjoy great hospitality, as the local government, businesses and residents pride themselves on making visitors feel at home.

The proposed conference dates, October 9 - 14, 2016, fall in the autumn season and the climate should be mild, with temperature ranging from 16 to 22 degrees Celsius (61 to 72 deg F).



## Conference Venue

### PACIFICO Yokohama, "All in One" Convention Center

PACIFICO Yokohama is the largest convention complex in Japan, equipped with the functions to meet every requirement of the 16WCEE.

Its beautiful exterior, designed to bring to mind ocean waves, wind, and sunlight, has become the symbol of the historic and cosmopolitan city of Yokohama. The facility has welcomed academics, business professionals and heads of states from around the world since 1991.

Ease of access, attentive service provided by capable and experienced staff, and its location surrounded by the ocean and lush greenery give PACIFICO Yokohama its distinctive character.



National Convention Hall (5,000 seats)



InterContinental Yokohama Grand



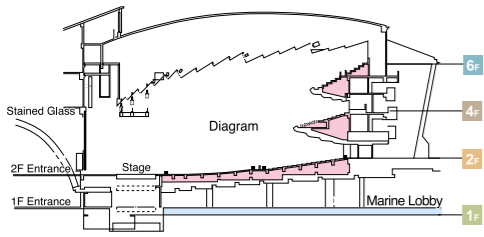
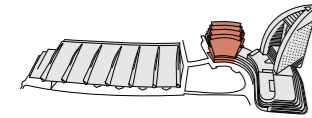
Conference Center (50 rooms of various sizes)



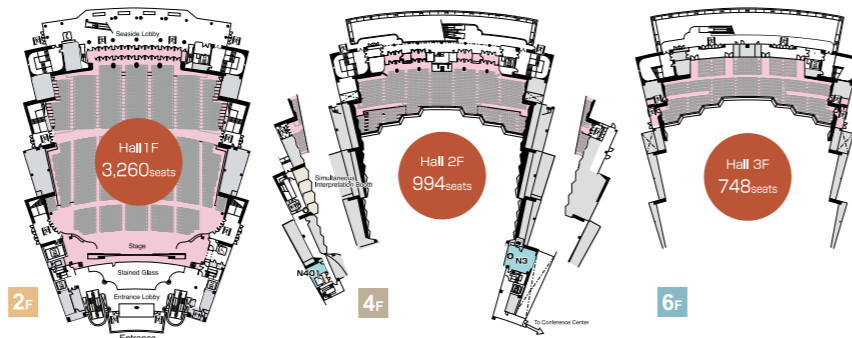
Exhibition Hall A-D (20,000 sq meters of column-free space)

Website: <http://www.pacifico.co.jp/english/>

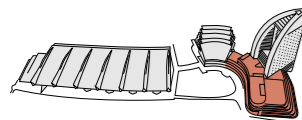
## Proposed Floor Plan National Convention Hall



National Convention Hall : Opening and Plenary



## Conference Center



2F Room 211 and 212 : Oral 16  
Room 213 : Data Reception

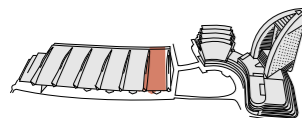
3F Room 301 and 302 : Oral (Keynote)  
Room 304 : Oral 1  
Room 303 : Oral 2  
Room 311 : Oral 6  
Room 311 and 312 : Oral 6  
Room 313 and 314 : Oral 7  
Room 315 : Oral 8  
Room 316 and 317 : Office  
Room 318 : VIP Room

4F Room 411 and 412 : Oral 9  
Room 413 : Oral 10  
Room 414 and 415 : Oral 11  
Room 416 and 417 : Oral 12  
Room 418 : Oral 13  
Room 419 : Oral 14  
Room 421 and 422 : Waiting Room  
Room 423 and 424 : Staff Room

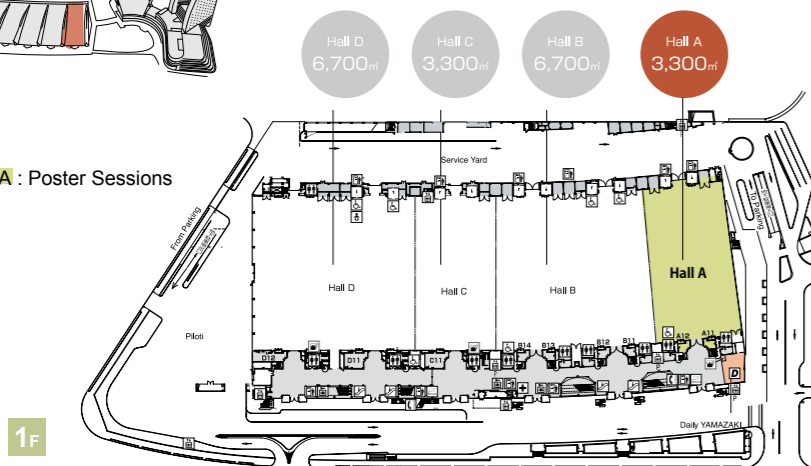
5F Room 501 : Oral 3  
Room 502 : Oral 4  
Room 503 : Oral 5  
Room 511 and 512 : Oral 15



## Exhibition Hall



Hall A : Poster Sessions



## Proposed Program

### 1. Program Enhancement

The Japan Bid Committee for the 16WCEE proposes the following new ideas to enhance the traditional format of the conference, and also to add new values to the WCEE program.

#### (1) Adding New Presentation Schemes

As the number of conference participants has been increasing significantly, it is time to offer more choices of presentation styles in addition to the traditional oral and poster presentations. The aim is to provide each presenter with effective means to better transmit his/her research findings as well as to facilitate discussions between the presenters and the audience, while allocating about half of the traditional session time. The presentation style will be selected by the presenter, not the conference organizer. The proposed three new styles are as follows:

**Indexed Oral and Poster Presentation:** Each presenter gives a 3-minute oral presentation. About 20 such presenters are considered per session. The audience then will be asked to move to a separate room where the relevant posters are placed in advance, and can have detailed discussion with the presenter in front of his/her poster for as long as 70 minutes.

**Combined Oral and In-depth Poster Presentation:** Unlike the regular poster session, this type of combined session allows each presenter to speak in front of his/her poster for 2 minutes, and the moderator to add 1-minute summary and criticism. The oral part will continue for 45 minutes involving 15 presenters, after which 60 minutes are allocated for in-depth discussions between the audience and presenter using the poster.

**Combined Oral, Movie, and In-depth Poster Presentation:** By introducing a 2-minute movie on a large monitor, the presenter can express his/her research objectives and findings more precisely and efficiently, before the moderator adds 1-minute summary and criticism. The oral and movie part will continue for 45 minutes involving 15 presenters, after which 60 minutes are allocated for in-depth discussions between the audience and presenter.

**Online Paper Viewing and Discussion System:** By accessing to the specially programmed online system, participants can view the submitted papers and presentation slides at a convenient time during the conference dates. The system also allows the viewer to e-mail comments and questions directly to the author, thus creating opportunities of online and even face-to-face discussions. For this purpose, a sufficient number of computer terminals may be set up in the conference venue.

The above presentation styles will be tested repeatedly during the JAEF conferences in Japan, such that their advantages are confirmed and improved well before the announcement is made to 16WCEE participants.

#### (2) Two Types of Special Sessions with Normal and Extended Preparation Periods

A traditional special session has a normal preparation period of several months. Topics are freely proposed by the conference participant or his/her group 1 year before the conference, and will be reviewed by the 16WCEE Organizing Committee for selection.

Another type of session requiring 2.5 years of preparations is to be newly proposed, on topics requiring analysis and solution for pressing issues. Unlike the traditional session style, this style requires well-coordinated investigations by the session members and conclusions are to be unanimous. The results will be published as the WCEE special report under the name of the session group. The topic will be solicited to general participants 3.5 years before the conference. The 16WCEE Organizing Committee will also invite to such sessions those pursuing "international collaborations" described in (3).

Note that example topics for the new style sessions are listed on the following page, but the actual topics will be selected by the cooperation between the 16WCEE Organizing Committee and the IAEE, based on identified needs for the WCEE reports.

#### (3) International Collaborations

Promoting international collaborations among the countries of different views as well as different stages on the same research issue is an important component of the proposed 16WCEE program.

Under the scheme, international network of various countries will be established 2.5 years before the conference, ideally with a pre-conference workshop held on the group's budget, and collaborative work should progress toward possible presentation in the new style session described in (2) at the 16WCEE. International collaborations will be solicited to potential WCEE participants 3.5 years before the conference. Participations by young researchers are encouraged, in order to promote their international networking activity. (see also (5))

Since the 16WCEE Organizing Committee will be responsible for this attempt to succeed, it will try to create at least collaborations between international researchers and Japanese researchers. Japan can effectively assist in providing data in areas such as source mechanisms, near-field motions, long period and duration motions, tsunami, liquefactions, early warning systems, coastal and in-land mountain hazards, nuclear power facilities, super tall buildings and towers, response control by dampers or base-isolation, full-scale shake-table experiments, blind analysis



## Proposed Program (Continued)

predictions, infrastructure and building retrofit, business continuity and risk management, disaster mitigation and recovery, earthquake education, and multidisciplinary science for multi-hazards. Descriptions on the topics are given on the following page.

Like the new special session in (2), actual selections for the international collaborations will be made by the cooperation between the 16WCEE organizing committee and the IAEE.

### (4) Blind Analysis Contests

Blind analyses contests have been successfully held, attracting participations of various countries, and are important international events. The proposed program will contain such contests with the support of Japanese institutions that can provide necessary data. The first contest is on predicting ground motions at various depths for the given bedrock motions. The second contest is on predicting tidal wave at the specified coast geometry for the given crustal deformations in the ocean. The third contest is on predicting vibration of a full-scale structure tested on the shake-table, using the structure data and table motions.

Japan has extensive experience on the types of the first and third contests noted above. For the latter, its previous examples include analysis for the results of a full-scale shake-table tests such as collapse of a 4-story building, undamaged response of a 5-story building with dampers, collapse of bridge concrete column, and others, all using the table motion simulating the catastrophic ground motion recorded during the 1995 Kobe earthquake (e.g., [http://www.blind-analysis.jp/index\\_e.html](http://www.blind-analysis.jp/index_e.html)).

The contest may open 1 to 2 years before the conference, depending on the type noted above, and its results will be announced 6 months before the conference, inviting the winners to submit the WCEE papers for an invited presentation in a special session. The experience of Japanese institutions will be fully utilized to organize the contest, to encourage contestants, and to attract interest of the audience.

### (5) Young Researcher Sessions and Awards

As the size of conference grows, it becomes more difficult for young researchers to enjoy their attendance, since they have a limited number of international acquaintances to socialize with, and because their chances to make presentations may become slimmer. The Japan Bid Committee considers giving more international exposures and incentives to the young researchers for the future development of the earthquake engineering.

Financial supports covering the conference registration fee and full or partial travel expenses will be set up to encourage and recognize promising young researchers. The recipients will be

selected based on applications and paper submissions, which will be reviewed by a designated group of senior reviewers. The recipients will be invited to the contest for the young researcher award.

For the young researcher award contestants, more than ten sessions of different fields will be scheduled concurrently in the morning of the third day. The format will be a 7-minute oral presentation followed by a relatively long 5-minute discussion, for the purpose of accurate ranking of the presentation.

### (6) Pre-conference Training Sessions

For relatively young participants from developing countries, short and practical training courses will be offered, with the conference registration fee and full or partial travel expenses covered. Japan has substantial experience in offering such international training, with extensive dedication from the Japan International Cooperation Agency (JICA) and International Institute of Seismology and Earthquake Engineering (IISEE) at the Building Research Institute (BRI).

The IISE has been providing training courses in engineering seismology, seismic resistant design, geotechnical earthquake engineering and so on. The courses have been highly acclaimed both within Japan and around the world, and to date they have been completed by a total of 1,424 participants from 96 countries. Many outstanding participants who wished to receive higher education went on to study at various Japanese universities.

The 16WCEE Organizing Committee will work closely with the IISE and its many instructors from various universities in Japan, in order to provide efficient training sessions prior to the 16WCEE.

### (7) Site Tours and On-site Sessions

More than ten site tours and on-site sessions will be offered. The most of them are linked to the special sessions (2), international collaborations (3) or blind analysis contests (4) described above.

Seven different one-day tours will be organized in Tokyo area, on the 6th day of the conference period. They are the tours to: a model site with earthquake warning and damage monitoring systems; a coastal area heavily damaged and recovered from the liquefaction of the largest scale in history, value-added buildings with dampers and/or isolators, retrofitted buildings and bridges, the world's tallest tower, seismic protection districts practicing business and district continuity programs, and a park and museums exhibiting disaster and recovery from the 1923 Kanto earthquake.

One-day tour will be organized to museums and villages in Chu-Etsu area to observe disaster and recovery in mountainous

region impacted by the 2004 Mid-Niigata Prefecture earthquake. Two-day tour on the 6th and 7th days will be organized to Kobe area and E-Defense facilities to observe disasters and recovery from the 1995 Kobe earthquake as well as to learn the full-scale

shake-table tests. Another two-day tour will be organized to observe the disaster and recovery of Tohoku and Fukushima from the 2011 Tohoku earthquake.

## 2. Schedule

The proposed schedule for the 16WCEE will consist of 5-day sessions at the conference venue in Yokohama, with additional 1- or 2-day extension for those interested in site tours and on-site sessions. The details are shown in the table below.

Oct. 8 Sunday	Oct. 9 Monday	Oct. 10 Tuesday	Oct. 11 Wednesday	Oct. 12 Thursday	Oct. 13 Friday	Oct. 14 Saturday	Oct. 15 Sunday
	Opening Ceremony & Keynote Sessions	Keynote Sessions & Parallel Sessions	Keynote Sessions & Young Researchers Sessions	Keynote Sessions & Parallel Sessions	Keynote Sessions & Parallel Sessions	Tours T1 to T7 (Tokyo Area)  Tour T8 (Nagaoka Area)	Continued Tours :
	Lunch	Lunch	Lunch	Lunch	Lunch		
Registration & Tour Desk Open	Parallel Sessions	Parallel Sessions: with New Presentation Schemes Added	Poster Sessions	Parallel Sessions: with New Presentation Schemes Added	Parallel Sessions & Closing Session	Tour T9 (Tohoku Area & Fukushima)	Tour T9 (Tohoku Area & Fukushima)
	Meet & Greet			Banquet (Gala Dinner)		Tours T10 & T11 (Kobe Area & E-Defense)	Tours T10 & T11 (Kobe Area & E-Defense)

Note: One- or two-day pre-conference sessions will be given before Oct. 9.

## 3. Budget

Two different budget estimates have been prepared, with the assumed number of participants being 3,000 and 4,000, respectively. The registration fee will be \$700 for a regular participant, \$500 for a participant from a developing country, and \$375 for a student, based on the assumed exchange rate of 1 US Dollar = 80 Japanese Yen.

The Japan Organizing Committee for the 16WCEE will transmit five percent of the registration fee of each full registrant to IAEE, as the fee to cover operating expenses of IAEE central office. According to the above-mentioned two estimates, the expected amount would be \$53,000 to \$71,000.

The budget will also allow financial supports for registration and/or travel expenses of the participants from developing countries as well as those selected for participation in the young researcher session and contest. Supports for up to 200 such participants are considered.

## Proposed Program (Continued)

### 4. Special Sessions and / or International Collaborations Assisted with Data Contribution by Japan (Examples)

Example topics for the new style sessions are listed below. Note that they may not be necessarily the ones to be selected. Other topics can be freely proposed by the conference participants. Actual topic selections will be made by the cooperation between the 16WCEE organizing committee and the IAEE, based on identified needs.

**(S1) Seismic Hazard Assessment for Subduction Zones:** Reconsidered methodologies based on the failure to foresee megathrust earthquakes such as the 2004 Sumatra-Andaman and 2011 Tohoku earthquakes

**(S2) Rapid Assessment of Damage Status in Large-scale Disasters:** Use of the airborne and satellite remote sensing technologies for areas difficult to access from ground in the 2010 Haiti, 2010 Christchurch, and 2011 Tohoku earthquakes ( 1 )

**(S3) Lessons Learned from Large-scale Liquefaction:** Investigation into broad extent of the liquefaction caused by long-duration shaking, including comparative study of recent cases in Chile and New Zealand ( 2 )

**(S4) Earthquake and Tsunami Warnings with Building Safety Monitoring:** Successful applications in the 2011 Tohoku earthquake, including installation and maintenance of the system, accuracies, and data for command decisions ( 3 )

**(S5) Reduction of Multi-Hazard Disasters:** Complex disasters caused by structure shaking, geotechnical hazards, quake-triggered fire and flood, tsunami, heavy pre- and post-quake snowfalls, and others requiring multidisciplinary approaches

**(S6) Assessment of Nuclear Power Plants for Earthquake and Tsunami:** Behavior and vulnerability in reference to the Kashiwazaki-Kariwa and Fukushima Daiichi plants damaged by the 2007 Niigata Chuetsu-Oki and 2011 Tohoku earthquakes, respectively

**(S7) Cutting Edge Technologies Using Dampers and/or Isolators:** State-of-the-art technologies of response-control using dampers and/or base or mid-height isolation. Examples of analysis, design, experiment and construction ( 4 , 5 right, 6 )

**(S8) Super-Tall Buildings and Towers:** New and retrofit designs of buildings and contents considering near- and far-field motions having long period and duration. Examples include design and construction of the world's tallest tower, "Sky Tree"

**(S9) Full-Scale Experiments Using World's Largest Shake Table:** Buildings of timber, reinforced-concrete, steel, response-controlled, and base-isolated structures, as well as bridges. Data sharing and correlative analyses ( 5 )

**(S10) Blind Analysis Contests for Ground Motion, Tsunami, and Full-scale Experiments:** Predictions of motions of ground, tidal wave, and structures, for the given bedrock motions, crustal deformations, and shake-table motions, respectively ( 5 )

**(S11) Seismic Retrofit of Major Buildings:** Retrofit of non-ductile steel frames and reinforced-concrete frames, enhancing ductility of connections and members, adding dampers, and/or seismically isolating at the base or other level ( 6 )

**(S12) Strong Motions Recorded on Ground and Various Structures:** Near-field motions, long-period and long-duration motions, buildings and bridges of conventional structure, response-controlled structure, and base-isolated structure, data sharing and correlative analyses ( 7 , 8 )

**(S13) Socio-Economic Impact of Damage of Buildings and Infrastructure:** Protection and performance-based design of many non-structural components and important equipment, and their direct effects on functions and socio-economic value of the building ( 9 )

**(S14) Protection of Mega-city from Mega-quake:** Strategies and practices for reducing damage in central business and residential districts of modern cities, with a focus on BCP (Business or Building Continuity Plan) and DCP (District Continuity Plan) ( 3 , 9 )

**(S15) Public Education to Reduce Disaster:** Sharing, dissemination and transmission of lessons learned and valuable experience gained from the 1923 Kanto, 1995 Kobe, 2007 Niigata Chuetsu-Oki, 2011 Tohoku earthquake and other disasters

### 5. Site Tours and On-site Sessions (Examples)

**(T1) State-of-Practice Earthquake Warning and Damage Monitoring Systems:** Tours observing most advanced systems in Japan Meteorological Agency (earthquake and tsunami early warning systems), Railway Technical Research Institute (early warning for super-express railways) and high-rise buildings (monitoring and damage estimation). Linked to Sessions S2, S6, S11, and S14 ( 5 )

**(T2) Disaster and Recovery from the World's Largest-scale Liquefaction:** Tours observing severely-affected Tokyo Bay coastal areas. Sharing information on geotechnical data and damage to various facilities, and on the extensive experience gained from the recovery process considering each resident's limited financial ability to confront damage and asset loss. Linked to Sessions S3, S11, and S14 ( 2 )

**(T3) Value-Added Buildings with Protective Schemes:** Tours observing outstanding cutting-edge projects using dampers and/or seismic isolators for houses, gymnasiums, short to super-tall buildings, and others. Shared information on design, analysis, related experiments of protective schemes, and projected benefit in continuity of building use and business after a major earthquake. Linked to Sessions S7 to S14 ( 4 , 5 )

**(T4) Retrofitted Buildings and Bridges in Tokyo:** Tours observing buildings retrofitted by braces or dampers, adopted for short to super-tall buildings. Demonstrations of retrofit design with analysis, actual construction, and costs relative to the value of the building. Linked to Sessions S7, S11, S13, and S14 ( 4 , 6 )

**(T5) The World's Tallest Tower:** Tours to the observatory of the "Tokyo SkyTree", steel fabricator's factory and steel producer factory, including on-site presentations on details of design, analysis, fabrication and construction. Special on-site sessions planned for focused discussions. Linked to Session S8

**(T6) District Seismic Protection:** Tours to districts practicing BCP/DCP in central business districts at Roppongi Hills, Tokyo Station and Shinjuku Station. Examples of total systems in high-rise buildings, including risk management and protective technologies of dampers and/or isolators combined with structural monitoring systems. Linked to Sessions S4, S5, and S11 to S14

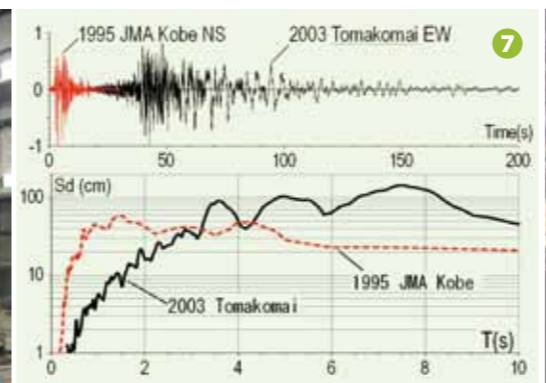
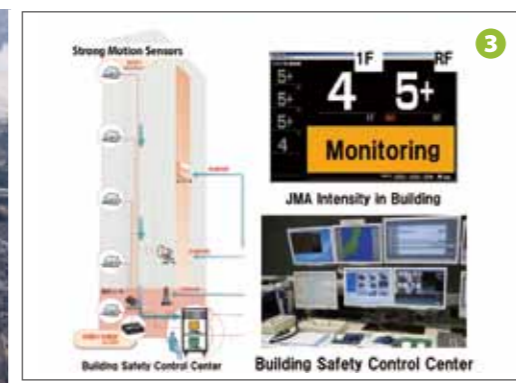
**(T7) Disaster and Recovery of Tokyo (1923 Kanto earthquake):** Tour to a park with Edo-Tokyo Museum, Memorial Museum and Memorial Hall for the 1923 Kanto earthquake, deadliest event in Japan with casualties of 105,000. Multi-hazards of the strong shaking and the post-quake gigantic fire whirl killing 38,000 evacuees in 15 minutes at an open space of 68,000 square meters around the park. Linked to Sessions S1, S5, and S15

**(T8) Disaster and Recovery in Mountainous Region (2004 Chu-Etsu earthquake):** Tour to the memorial museums including Chu-Etsu Earthquake Memorial Corridor and mountainous sites to observe recoveries in Nagaoka City and adjacent villages. Multi-hazards from the strong shaking, heavy snow, and massive landslides isolating and destroying Yamakoshi village. Linked to Sessions S2, S5, and S15 ( 10 )

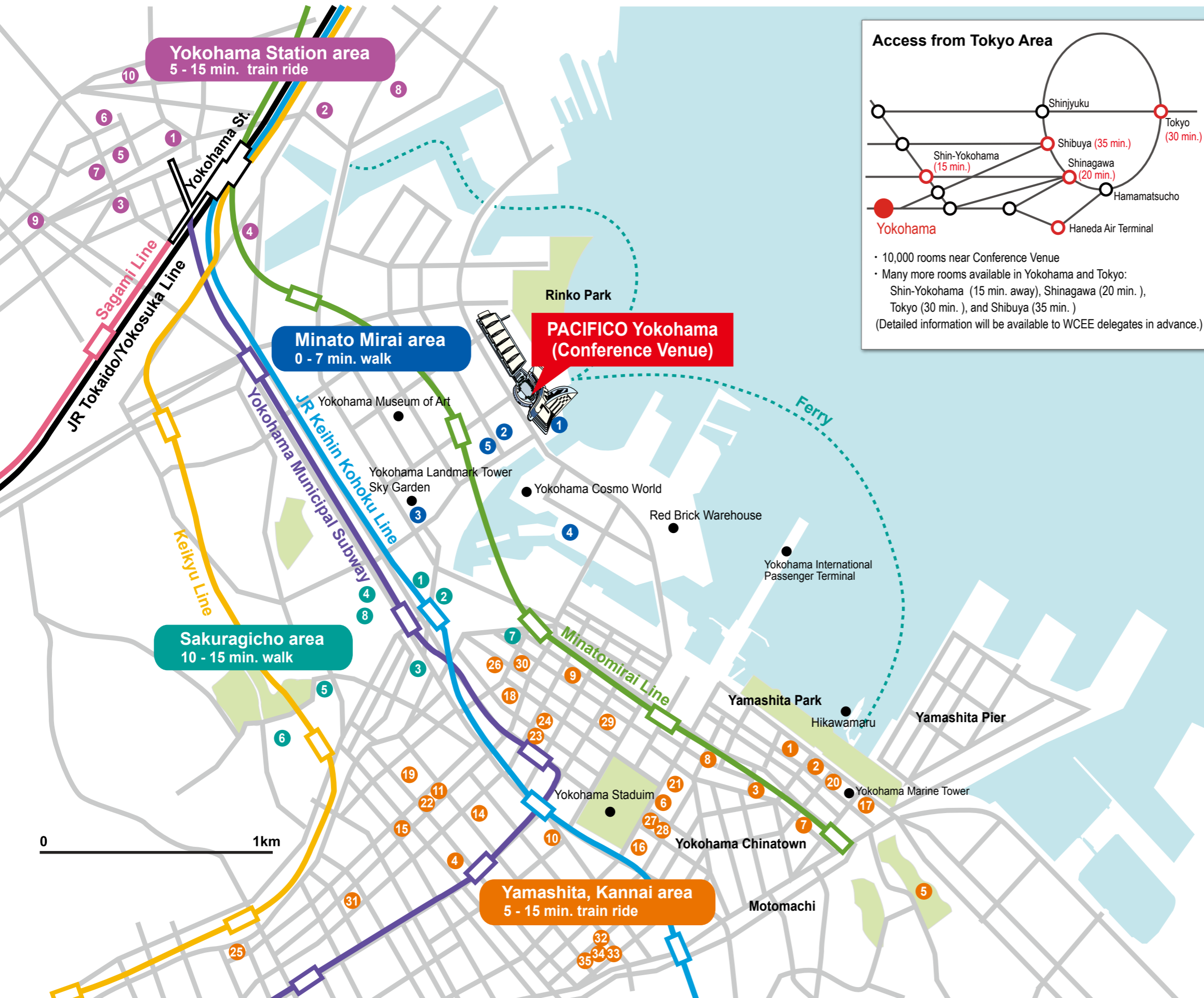
**(T9) Disaster and Recovery of Tohoku and Fukushima (2011 Tohoku earthquake):** Tour to the areas affected by tsunami and/or strong shaking, including the Fukushima Daiichi Nuclear Power Plant. Observations of multi-hazards over wide areas and recoveries at their early stage. Special on-site sessions planned for focused discussions. Linked to Sessions S1 to S7, S11 to S13, and S15 ( 11 )

**(T10) Disaster and Recovery in Kobe Area (1995 Kobe earthquake):** Tour of Disaster Reduction and Human Renovation Institution in Kobe City and many other affected areas to observe recoveries at a mature stage after 20 years. Newly constructed buildings and bridges, repaired lands and community tactics for future incidents. Extended tour to Akashi-Kaikyo Bridge, completed in 1998 with the longer central span than any other suspension bridge in the world to date. Linked to Sessions S5, S7, S11, and S13 to S15 ( 4 , 12 )

**(T11) World's Largest Shake-table Facility:** Tour to "E-Defense" located near Kobe City for observing the facility, past tests and possibly the test planned for blind analysis. Special on-site sessions planned for the blind analysis contestants, tour participants, and the E-Defense researchers of the National Research Institute for Earth Science and Disaster Prevention (NIED). Linked to Sessions S7 to S12 and S15 ( 5 )



# Hotels near Conference Venue



### Access from Tokyo Area

- 10,000 rooms near Conference Venue
- Many more rooms available in Yokohama and Tokyo:  
 Shin-Yokohama (15 min. away), Shinagawa (20 min. ),  
 Tokyo (30 min. ), and Shibuya (35 min. )  
 (Detailed information will be available to WCEE delegates in advance.)

Area	Hotel	No. of Rooms	Capacity	Class
<b>Minato Mirai Area 1,832 rooms</b>				
<b>0-7 minutes walk from venue</b>				
1	InterContinental Yokohama Grand	594	1,200	★★★★★
2	Pan Pacific Yokohama Bay Hotel Tokyu	480	480	★★★★★
3	Yokohama Royal Park Hotel	603	1,212	★★★★★
4	Navios Yokohama	135	185	★★★
5	Annex Suehiro	20	-	★
<b>Sakuragicho Area 1,486 rooms</b>				
<b>10-15 minutes walk from venue</b>				
1	Hotel New Otani Inn Yokohama	240	606	★★★★
2	Yokohama Sakuragicho Washington Hotel	553	697	★★★★
3	Breezbay Hotel	161	300	★★★★
4	Hotel Terrace Yokohama	81	170	★★★
5	Yokohama Mandarin Hotel	136	212	★★
6	Hotel Oimatsu	28	60	★★
7	Toyoko Inn Yokohama Sakuragicho	217	250	★★
8	Weekly Mansion Sakuragicho	70	-	★★
<b>Yamashita, Kannai Area 5,406 rooms</b>				
<b>5-15 minutes train ride from venue</b>				
1	Hotel Monterey Yokohama	170	340	★★★★★
2	Hotel New Grand	249	478	★★★★★
3	Rose Hotel Yokohama	178	356	★★★★★
4	Yokohama Isezakicho Washington Hotel	399	622	★★★★
5	KKR Port Hill Yokohama	9	34	★★★★
6	Daiwa Roynet Hotel Yokohama-Koen	292	584	★★★
7	Escale Yokohama	68	131	★★★
8	Hotel JAL City Kannai Yokohama	170	306	★★★
9	Hotel Route Inn Yokohama Bashamichi	272	331	★★★
10	Hotel Wing International Yokohama-Kannai	150	230	★★★
11	Yokohama Town Hotel	42	-	★★★
12	Hotel Alpha One Yokohama Kannai	342	419	★★★
13	Hotel Tokai	19	32	★★★
14	Daiwa Roynet Hotel Yokohama Kannai	212	424	★★
15	Hotel Grand Sun Yokohama	94	170	★★
16	Hotel Yokohama Garden	49	100	★★
17	Mielparque Yokohama	43	185	★★
18	Richmond Hotel Yokohama Bashamichi	201	226	★★
19	Sauna & Capsule Inn New City	139	254	★★
20	Star Hotel Yokohama	126	252	★★
21	Super Hotel Yokohama Kannai	238	317	★★
22	Yokohama Apeze Hotel	48	70	★★
23	Apa Hotel Yokohama Kannai	451	549	★★
24	Comfort Hotel Yokohama Kannai	243	290	★★
25	Hotel Mystays Yokohama	190	350	★★
26	Marutani Hotel	50	74	★★
27	Toyoko Inn Yokohama Stadium-mae Honkan	164	201	★★
28	Toyoko Inn Yokohama Stadium-mae Shinkan	277	363	★★
29	Toyoko-inn Yokohama Minato-miraisen Nihon Odori ekimae	131	179	★★
30	Yokohama Heiwa Plaza Hotel	188	322	★★
31	Hotel LIVEMAX Yokohama-Kannai	87	-	★★
32	Hostel Zen	13	-	★
33	Hostel A Silk Tree Yokohama	24	54	★
34	Hostel Porto Yokohama	38	60	★
35	Yokohama Hostel Village	40	80	★
<b>Yokohama Station Area 1,196 rooms</b>				
<b>5-15 minutes train ride from venue</b>				
1	Yokohama Bay Sheraton Hotel & Towers	398	688	★★★★★
2	Keikyu EX-inn Yokohama-eki Higashi-guchi	95	95	★★★
3	Yokohama Kokusai Hotel	121	165	★★★
4	Yokohama Plaza Hotel	118	188	★★★
5	Hotel AQUA YOKOHAMA	16	-	★★
6	Hotel Banquet & Restaurant CAMEROT Japan for epiqueurs	215	322	★★
7	Hotel Plumm Cosmo Y	154	199	★★
8	Suzuman Ryokan (Japanese Inn)	7	-	★★
9	Toyoko Inn Yokohama Nishiguchi	64	128	★★
10	Guest House Kanalian	8	-	★

## Accommodation Facilities

A wide variety of accommodation options, ranging from five-star hotels to budget hotels, are available in Yokohama. The below table shows typical minimum and average rates for a single room per night on weekdays. (These prices and applied currency exchange rates are for reference only and subject to change.)

Star Rating	Minimum Room Rate (JPY)	Average Room Rate		
		(JPY)	(EURO)	(USD)
★★★★★	¥12,000	¥14,300	€143	\$179
★★★★	¥9,000	¥10,000	€100	\$125
★★★	¥6,000	¥7,000	€70	\$88
★★	¥4,000	¥5,200	€52	\$65
★	lower than ¥4,000	¥2,700	€27	\$34

InterContinental Yokohama Grand ★★★★★  
Integrated within PACIFICO Yokohama  
594 rooms, a grand ballroom and 9 restaurants



Yokohama Sakuragicho Washington Hotel ★★★★★  
10 min. walk from the venue  
553 rooms, 3 meeting rooms and 1 restaurant



Navios Yokohama ★★★  
7 min. walk from the venue  
135 rooms, 2 banquet rooms and 1 restaurant



Toyoko-Inn Yokohama Sakuragicho ★★  
10 min. walk from the venue  
217 rooms



Super Hotel Yokohama Kannai ★★  
10 min. subway ride from the venue  
238 rooms



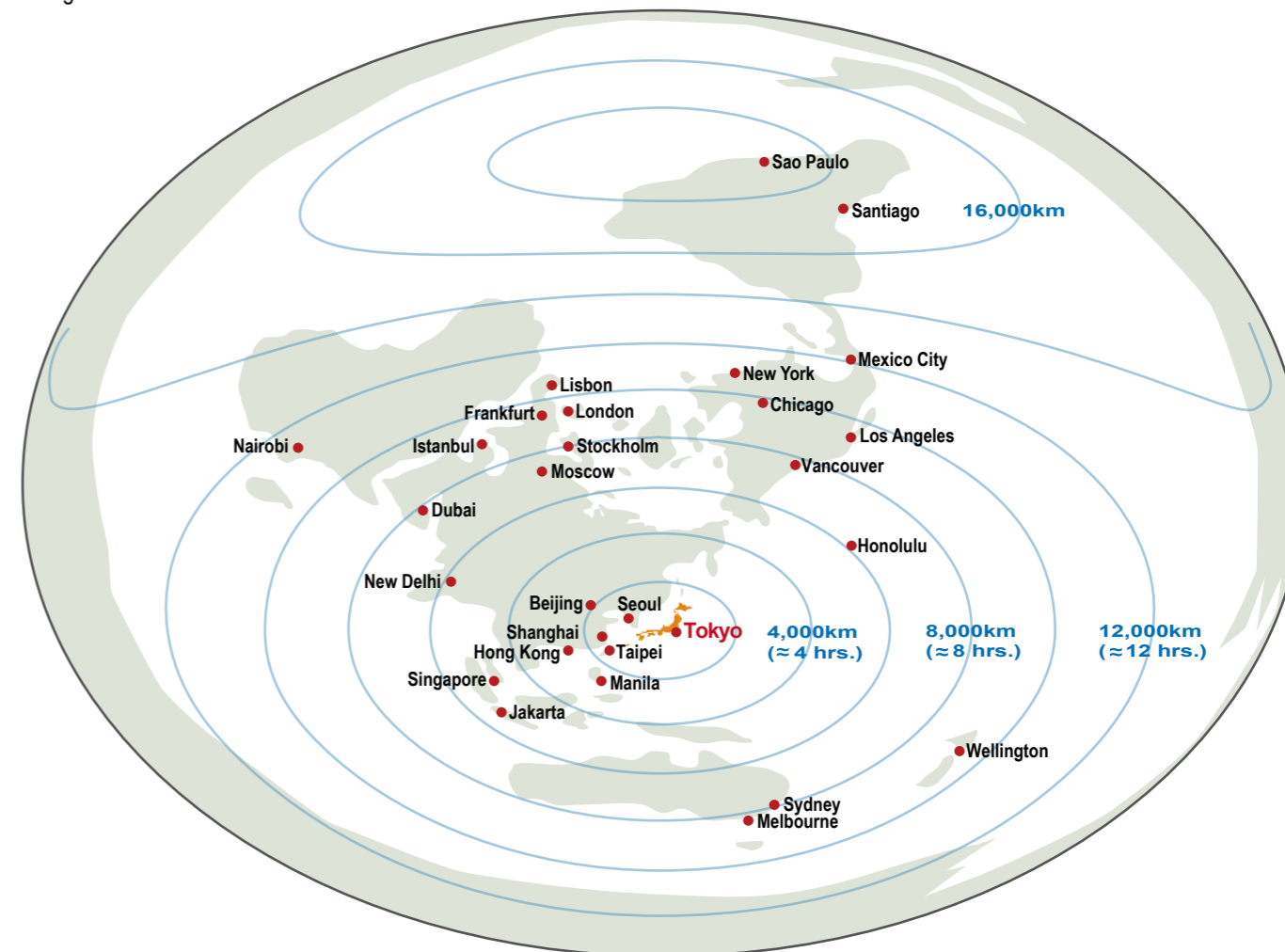
"Business Hotels" in Yokohama ★★ / ★★★★★  
Simple and functional hotels are called business hotels in Japan and are mainly used by people who travel for business purposes. They are usually located near major train stations. Rooms are not big or fancy, but they are usually nice and clean, has ensuite bathroom, and quite often have free internet.



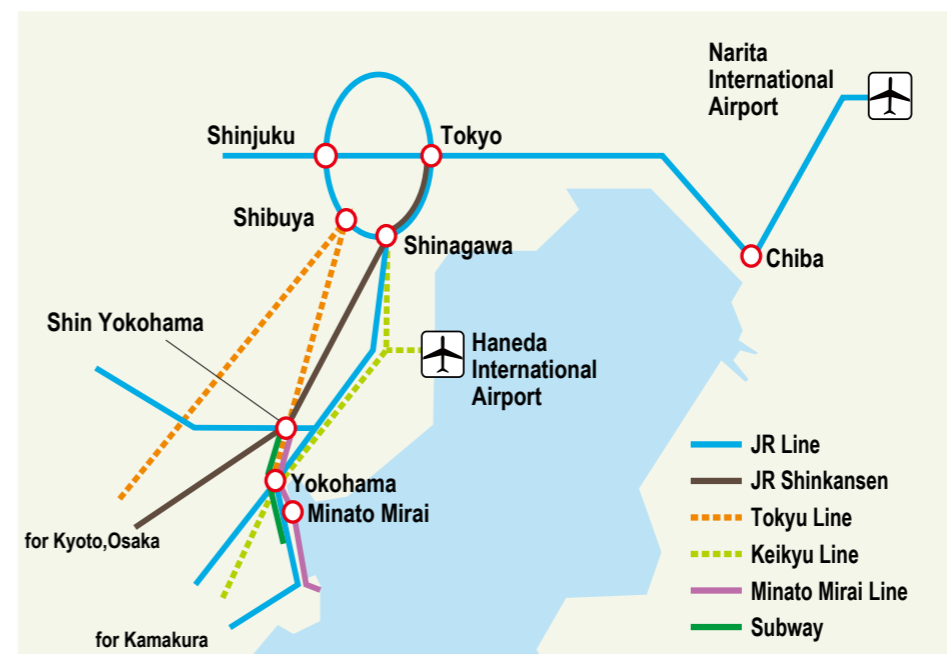
## Accessibility and Transportation

### Getting to Japan

Getting to Yokohama from anywhere in the world is easy, thanks to the city's proximity to two international airports, Tokyo International Airport (Haneda) and Narita International Airport. The two airports together handle over 1,500 international flights weekly from more than 90 cities in 40 countries by over 60 airlines. Its location and extensive air services make Yokohama an attractive destination for conference delegates from all over the world.



### Getting to Yokohama



### Approximate Time to Central Yokohama

From Narita International Airport

- Taxi 70 min.
- Limousine Bus \* 90 min.
- Train \*\* 90 min.
- ( \* departs every 15 min. )
- ( \*\* departs every 30 min. )

From Haneda International Airport

- Taxi 15 min.
- Limousine Bus \*\*\* 24 min.
- Train \*\*\* 20 min.
- ( \*\*\* departs every 5 - 10 min. )

## Places to Visit, Things to See

There are a great variety of interesting places for the 16WCEE delegates to visit in Yokohama (all within 25 minutes reach of the conference venue) as well as in the nearby old capital of Kamakura (30 minutes away from the venue).

### Within Yokohama (5-25 min. from venue)

Minato Mirai 21, Yokohama's oceanfront area where PACIFICO Yokohama is located, is also home to many of the city's best known attractions, including Japan's tallest building Landmark Tower and an amusement park featuring one of the world's largest Ferris Wheels. The city also displays influences of different cultures; for example, you can find the old Western-style Red Brick Warehouse, the always vibrant Chinatown or the remarkably serene Japanese garden Sankeien. A cruise in Yokohama Bay is popular for both local and international visitors.

#### 1 Yokohama Landmark Tower Sky Garden (7 min. on foot from venue)

Landmark Tower Building, Japan's tallest skyscraper soaring 296 meters, offers a panoramic view sweeping 360 degrees from the heart of Tokyo to Mt. Fuji from its observatory on the 69th floor. Situated in the lower levels are a shopping mall with over 200 shops and a 600-room hotel.

#### 2 Yokohama Cosmo World (5 min. on foot from venue)

Cosmo World is an amusement park with one of the world's largest Ferris Wheels, with a height of 112.5 meters and a capacity of 480 passengers. The park is complete with a roller coaster, a haunted house and many other fun attractions.

#### 3 Red Brick Warehouse / Red Brick Warehouse Park (5 min. bus ride from venue, or 15 min. on foot)

The lovely red brick buildings, with their original facades dating back around 100 years, have been refurbished from top to bottom as a shopping mall and multi-purpose hall for events and exhibitions. Outside is a park where you can sit and relax.

#### 4 Royal Wing - Cruising on Yokohama Bay (5 min. bus ride from venue, or 20 min. on foot)

The best way to feel the sea breeze of Yokohama Bay is cruising. On the cruise ship, you can enjoy a panoramic view of the Port of Yokohama

including the skyscrapers of Minato Mirai area, Yokohama Bay Bridge and the old historic town of Yamashita.

#### 5 Yokohama Chinatown (15 min. train ride from venue)

The Chinatown in Yokohama is the world's largest in scale. Over 500 establishments are clustered there, including restaurants offering all the major styles of Chinese cuisines and stores selling pastries, cooking ingredients, spices, and even clothing. Pass through any of the brilliantly colored gates, and you will find yourself in a different world, one that is truly Chinese.

#### 6 Sankeien Garden (25 min. bus ride from venue)

An authentic Japanese garden with an area of 175,000 sq. meters, Sankeien is graced with flowers and greenery in every season. A former residence of a prosperous local businessman, Sankei Hara (1868 - 1939), most buildings on the garden's premises are architectures of historical importance relocated from Kyoto, Kamakura and other parts of Japan.

#### 7 Yokohama Hakkeijima Sea Paradise (25min. train ride from venue)

Yokohama Hakkeijima Sea Paradise is an oceanfront theme park with Japan's largest aquariums. At "Dolphin Fantasy," you can watch dolphins and fish swim about freely in the sunshine as though flying through the air. The park also houses the country's first surf coaster that swings out over the sea.

### Kamakura, "Little Kyoto" (30 min. away)

A half-hour train journey will take you to the ancient Japanese capital of Kamakura. The city played an important role in Japanese history as the first shogunate government was established here in 1192. Surrounded by mountains and ocean, and dotted with beautiful shrines and temples, Kamakura, nicknamed "Little Kyoto," is a perfect place to explore the traditional and spiritual side of Japan. The magnificent Tsurugaoka Hachimangu Shrine, constructed by the first shogunate, and the statue of the Great Buddha are two of the most famous landmarks of Kamakura.

#### 8 Tsurugaoka Hachimangu

Tsurugaoka Hachimangu Shrine became Japan's center of politics in the 12th century, and it still remains as the geographical and cultural center of Kamakura today. Aside from the Main Shrine, there are several other small ones on the same premises, each worshipping different deities. The streets outside are lined with shops selling traditional crafts, local snacks and candies and other souvenirs.

#### 9 Meigetsuin

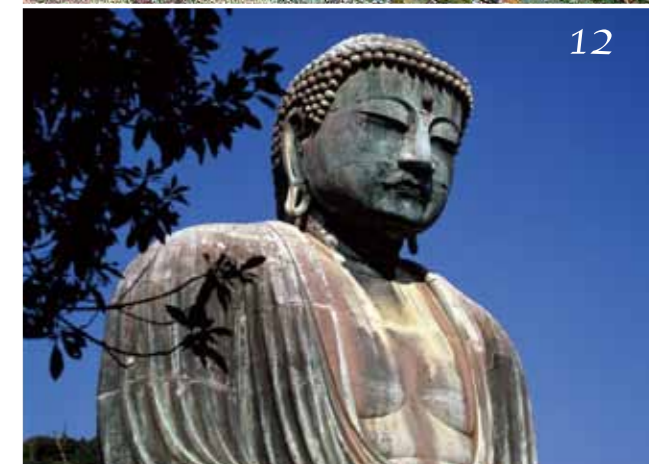
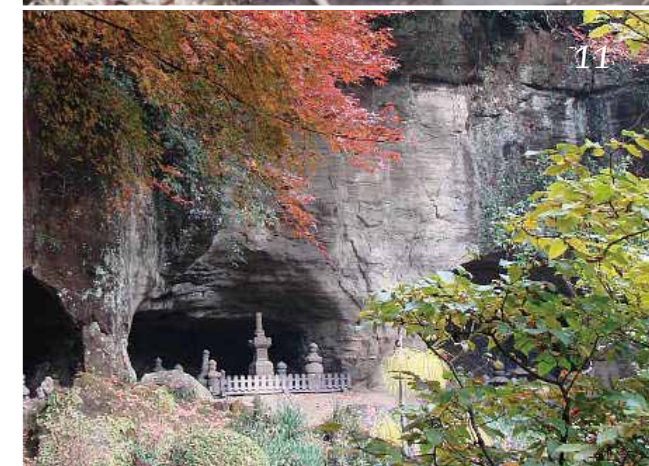
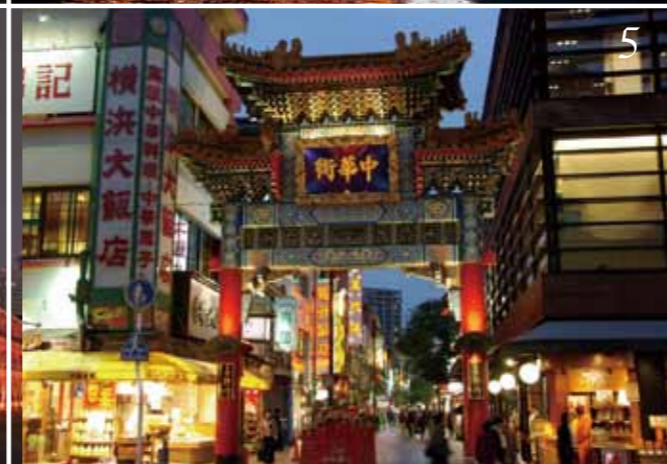
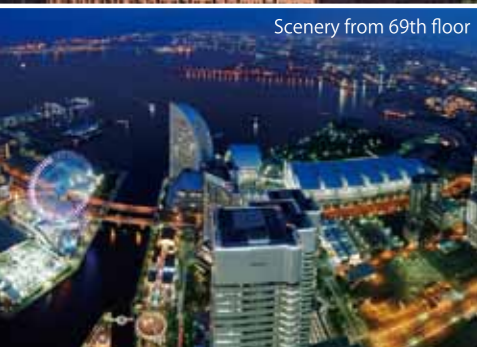
Meigetsuin Temple is also known as Ajisai-dera (Hydrangea Temple) as the colorful blossoms cover its entire ground in the early summer. There are many other types of flowers and plants at this temple, which was originally constructed in 1394, so that visitors can enjoy the beautiful scenery throughout the year.

#### 10 & 11 Hokokuji - Bamboo Garden & Rock Garden

Founded in 1334 by Tengan Eko, Hokokuji Temple is famous for an impressive bamboo garden which is laid out behind its main sanctuary. Another well-known feature of the temple is its rock garden, where you can observe an original minimalist design and feel the true spirit of zen.

#### 12 The Great Buddha

The iconic Great Buddha of Kotokuin Temple is in a seated meditative pose. It is over 750 years old, 11.4 meters tall, and weighs at 120 tons. The Buddha is the second tallest bronze status in the country and a must-see for all Kamakura visitors.



## Places to Visit, Things to See (Continued)

Additional places that are worth visiting include the world-renowned metropolis Tokyo (30 min. away), the picturesque Mt. Fuji and Hakone (90 min. away), the locally popular Nikko (2.5 hrs away) and the famous historical city of Kyoto (2.5 hrs away).

### Tokyo (30 min. away)

Situated only 30 minutes away from Yokohama, the bustling capital of Japan is packed with attractions, ranging from Tokyo SkyTree, the world's tallest tower opened to public in May 2012, to Senso-ji, the oldest temple in town which was originally founded in 628.

**1 Great Kanto Earthquake Memorial Museum** / This museum was established by Tokyo Metropolitan Government in 1931 to showcase the 1923 disaster and the tremendous reconstruction efforts that followed.

**2 Tokyo Tower** / The 333-meter-high broadcasting tower, with an observatory, a wax museum, an aquarium, shops and cafes inside, has been serving since 1958 as a symbol of Tokyo.

**3 Tokyo Sky Tree** / At 634 meters high, the brand new SkyTree has been recognized by the Guinness World Records as the world's tallest free-standing tower.

**4 Tokyo Midtown** / Tokyo Midtown in Roppongi is a sophisticated mega-complex serving the international clientele, with a luxury hotel, museum, shops and restaurants, and an open garden.

**5 Shinjuku** / Shinjuku, a busy district of Tokyo, has many skyscrapers including the Tokyo Metropolitan Government Building. It also offers a peaceful oasis, Shinjuku Gyoen National Garden.

**6 Asakusa** / Asakusa in eastern Tokyo is famous for Senso-ji temple, which houses a golden statue of Kannon, the goddess of mercy. Its precincts are always crowded with prayers and shoppers.

**7 Tokyo International Forum** / The capital's first conference and art center, designed by the Uruguay-born architect Raphael Vinoly, is a truly amazing piece of work with a massive steel-framed glass structure.

**8 Hama-rikyu Gardens** / Established in the 17th century as the shogun family's property, Hama-rikyu's green gardens and classical architectures draw an interesting contrast against the modern buildings in the background.

### Mt. Fuji and Hakone (1.5 hrs.)

Hakone is a town situated at the foot of the famous Mt. Fuji. This leafy resort boasts an abundance of hot springs scattered along its streams and rivers, as well as high-profile museums and large-scale amusement facilities.

**9 Lake Ashi (Ashi-no-ko)** / The placid Lake Ashi, with a circumference of 20 km, is a crater lake which was formed about 3,000 years ago when the nearby Mt. Kami erupted. Cruises and private boat rides are offered.

**10 Owakudani Valley and Hakone Ropeway** / Owakudani emits volcanic fumes of hydrogen sulfide. A 30 min. ropeway ride provides a breathtaking aerial view of the valley.

### Nikko (2.5 hrs.)

Nikko, part of the Nikko National Park, is located in Tochigi Prefecture, about 140 km north of Tokyo. A group of exquisite architectures based at Futarasan Shrine, Toshogu Shrine and Rinno-ji Temple, collectively known as the "Shrines and Temples of Nikko," was registered as the UNESCO World Cultural Heritage in 1999.

**11 Toshogu Shrine's Yomeimon Gate** / Toshogu, built in 1617, is one of the most well-known Shinto shrines in Japan. Its gigantic Yomeimon Gate comes with over 500 elaborate sculptures.

**12 Kegon Waterfall** / At 97 meters high, Kegon Waterfall is one of Japan's three highest and most beautiful waterfalls. Its water comes from Lake Chuzenji, another popular sight for visitors.



### Kyoto (2.5 hrs.)

Kyoto had been Japan's capital for 1,100 years, until 1869. In addition to visiting some of the 17 World Heritage temples and shrines, you can also have a glimpse of the traditional Japanese way of life by participating in various cultural programs.

**13 Fushimi-Inari** / Fushimi-Inari shrine is over 1,300 years old and it has over 5,000 red "torii" sacred gates.

**14 Shisen-do** / Originally a cottage of a samurai-turned-scholar, the temple has a breathtaking garden.

**15 Kiyomizu-dera** / Kiyomizu-dera temple is famous for its wooden veranda which juts out of the leafy hillside.

**16 Yuzen printing** / Yuzen is a silk-screen printing technique originated in Kyoto.

**17 Chion-in** / On the vast grounds of this Buddhist temple, there are 106 large and small buildings.

**18 Arashiyama Togetsu Bridge** / Togetsu ("moon-crossing") Bridge over Oi River blends well with the scenery of Arashiyama.

**19 Geiko and Maiko (Geisha)** / Geiko (Geisha) and Maiko (Apprentice Geisha) are still part of the Kyoto culture today.





Proposal for  
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Kizuna: Tying the World's  
Earthquake Engineering Communities  
I6WCEE Yokohama 2016

