

## Second Announcement

# Power transmission and distribution systems in the next generation

The 18th IERE General Meeting & Japan Forum



Kyoto, Japan

May 21 (Monday) – May 24 (Thursday), 2018

Kyoto, Japan

Organized by

IERE, CRIEPI and The Kansai Electric Power Co., Inc.

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## Message from IERE Chair

In reviewing IERE's objectives and mission in moving from the past into the future, what has become apparent over the last decade is that global electricity utilities are constantly exposed to change in an ever increasingly uncertain world. However, what is clearly certain is that the IERE role is to continuously and consistently seek new innovative pathways to meet the many challenges we face, as we move into the future. The impact of electricity generation, transmission, distribution and end-use has the ability to play a significant role with respect to the future sustainability of our industry.

It is my firm belief that the IERE, with one of its prime objectives being "to promote global cooperation through the application of applied technology solution sharing in solving problems to the electricity service industry is taking an important step forward in realizing its role with respect to the changing future for its members.

The IERE was established in 1968, five decades ago, its founding members CEA (Canada), UNIPED (Europe), Japan the IERE Council and EPRI (USA) have taken the leadership of promoting information exchange on research and development issues. However, due to the changes in the global electricity business during the 1990s the IERE decided to review its then mandate to meet the needs of the IERE members. In 2000, a strategic meeting held in Hiroshima saw the rebirth of the IERE. Strategic changes and re-engineering was introduced to meet the challenges of the new decade.

Today IERE is celebrating its 50th Anniversary and the renewed IERE is very different from the previous IERE, with a more focused approach. This approach has had significant buy-in from our members and we have established an excellent foundation to develop further and ensure value added benefits to our members.

Electricity and in particular technology development, innovation and leadership around electricity, is playing a profound role in assisting society in grasping the opportunities ("more electricity") and managing the threats ("climate change") emerging in the new century. The pace and scope of technological change in the electricity industry is greater today than ever before and, as such, the need to appropriately position electricity utilities from a technological perspective is an imperative.

It is with this in mind that the General Forum theme: "Power Transmission and distribution systems in the next generation" is totally appropriate. The need to understand the challenges that face our business over the next decades is an imperative and, as such, the sharing of knowledge, experiences, successes and failures will indeed go a long way in understanding which technology roadmap of the future. With this in mind, I hope that you will join me at the 18th IERE General Meeting to be held in the beautiful city of Kyoto, Japan. I believe it will truly be a significant forum and I trust that you will participate, share opinions, challenge each other in order to find the technological solutions that would assist us in the future of a sustainable electricity future.

It is with a great sense of honour that I am able to serve the ideals and values of the IERE in its 50th Anniversary year. We have accomplished a great deal and I believe the sound foundation the IERE has created over the last 50 years has paved a clear and robust path for our future.

Finally, my deepest thanks and appreciation to IERE, CRIEPI and the Kansai Electric Power Co., Inc. for hosting and organizing this the 50th Anniversary of IERE.

I welcome you all to our 50th Anniversary General Forum!



**Gregory Tosen**

IERE Chair  
PIESA, South Africa

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## Message from CRIEPI

CRIEPI is delighted to co-host the 18th IERE General Meeting and Japan Forum and sincerely welcomes all participants to Kyoto, Japan.

The electric power industry is currently encountering many challenges. The introduction of a large amount of intermittent renewable generations and the rapid advancement of digital technology are significantly impacting the planning, operation, and maintenance of power systems. Moreover, the change in lifestyle and the requirement from society would lead to the change in the business model of the electric power industry. The role of electric power systems in the future would be different from what it is at present. Therefore, the IERE General Meeting and Japan Forum has selected the theme, “Power transmission and distribution system in the next generation.” This forum will be a great opportunity to share and exchange in-depth thoughts and knowledge among the participants on the topic, and we are looking forward to having fruitful discussions with everyone.

We hope that you can join us in May, and spend valuable and enjoyable time with us.



**Yoshiaki Mino**

Vice President  
CRIEPI, Japan

## Message from The Kansai Electric Power Co., Inc.

On behalf of The Kansai Electric Power Co., Inc., co-host of the 18th IERE General Meeting and Japan Forum, it is our pleasure to welcome you to this international meeting in Kyoto, Japan.

While the underlying conditions surrounding the power industry may vary by country, many challenges such as the rapid increase in renewable generation and the recent advances in ICT and AI as supporting technologies are common. Further, these challenges require innovative approaches. Therefore, I am confident that this international meeting is an excellent opportunity for experts worldwide to share their experiences about these challenges in the transmission and distribution systems.

As you may already know, Kyoto, the “thousand-year capital,” is the ancient capital of Japan, and is internationally famous for its scenic beauty. I am looking forward to having fruitful discussions on the new trends in research and development in this beautiful old city.



**Tomihiko Oishi**

Director, Managing Executive Officer  
The Kansai Electric Power Co., Inc., Japan

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## Power transmission and distribution systems in the next generation

### ***About the theme***

Renewable energy has immense potential for wider implementation in future as it is an effective way to reduce carbon dioxide emissions and its generation costs are falling around the world. However, mass implementation of variable power supplies may impact power transmission and distribution systems. For example, in Japan, home solar power conditioners are causing a flicker effect. There are also concerns that other issues may occur in future, such as voltage fluctuations in distribution line, adverse effects on the power system stability and generation of surplus power.

On the other hand, rapid advances in IoT and AI in recent years have led to a wave of digitalization. The digital transformation has seen the creation of new products and services using digital technology, and companies have adopted new business models to gain a competitive edge. The electric power industry is no exception, with new forms of business arising in unregulated fields. These mainly use demand-side equipment connected to power distribution systems, such as virtual power plants and a smart meter service allowing people to check in on elderly family members. It is also predicted that many customers will have generators installed, resulting in more complex distribution systems and more active electricity transactions on the demand side. To handle this, operation departments of power distribution system (the regulated sector) will need to develop a function for running a platform for electricity transactions that targets power distribution systems in addition to the existing functions for electrical control, planning and maintenance.

For this reason, the Japan Forum will center on the theme of power transmission and distribution systems in the next generation, with a focus on distribution systems and comparatively low-voltage transmission systems, which are setting the scene for the creation of new electrical businesses in future.

### ***About this event***

IERE General Meeting is a platform for interactions among IERE members, recommended non-member experts and invited guests to discuss global energy issues focusing primarily on electricity. It provides the audience with opportunities not only to express their views on the ongoing IERE programs but also to discuss strategic approach to the controversial energy issues of the moment.

### ***Who should attend?***

This meeting should be attended by IERE members' representatives, as well as those interested in power industries as a whole, specifically in the related future R&D technologies and policies on generation, transmission, distribution, storage, environmental and regulatory issues, etc. Non-members are encouraged to attend and to share and learn about this highly potential but controversial energy issues. Experts on technical sessions, IERE members and non-members alike engaged in the session topics, should attend the event.

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## Outline Schedule: This schedule may be changed.

Monday	May 21, 2018	Welcome Reception [in the evening]
Tuesday	May 22, 2018	The 18th IERE General Meeting/Japan Forum
Wednesday	May 23, 2018	The 18th IERE General Meeting/Japan Forum
Thursday	May 24, 2018	Technical Tour (Optional)

## Session themes:

### Plenary Session

Opening Address: Mr. Gregory Tosen, IERE Chair, PIESA, South Africa

Welcome Speech: Dr. Shirabe Akita, Executive Vice President, CRIEPI, Japan

Keynote Speech: Mr. Lawrence Orsini, CEO, LO3 Energy, USA

*Title: "Energy of the New Inspires the Venerable"*

Mr. Michel Derdevet, Secretary General, Enedis, France

*Title: "The electricity distribution networks, vectors and actors of the energy transition"*

### IERE General Session [I]

The report of IERE activities by IERE chair and IERE central office

### IERE General Session [II]

The report of in-depth research on AI (Artificial Intelligence) by young engineers/researchers as part of IERE Technology Foresight project

## Technical Session

### Session 1

Theme: New trends and requirements in the field of transmission and distribution systems

In future, power distribution systems are expected to connect various forms of distributed energy resources such as solar power. This will require the development of a platform and cooperation between the demand side and the supply side to maintain the quality of electric power. The collection of fixed costs of equipment and the design of the electric power market will also become issues. This section will cover the following points:

- The role of power transmission and distribution system operators (management of distributed power supplies, etc.)
- Virtual Power Plant
- Modeling of networks

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- Economic viability of platforms
  - Measures to mass PV implementation and improvement of hosting capacity
  - Power trading
  - Handling customers' shift to prosumers (acting as both producers and consumers)

## Session 2

Theme: Technology for power transmission and distribution systems in the next generation

Attendees will discuss the next generation of technology that will be required for power transmission and distribution systems. This session will mainly focus on hardware, and will cover the following points:

- Technology for automation of power distribution system
- Power quality (voltage control, interference between devices, anti-flicker measures, high harmonics)
- Smart inverters
- Linking technology and control technology for distributed power supplies

## Session 3

Theme: Use of ICT (including AI and IoT) and its impact on power transmission and distribution systems

Attendees will discuss the next generation of technology that will be required for power transmission and distribution systems. This session will mainly focus on communication technology and software, and will cover the following points:

- Use of big data
- Use of smart meter data
- Use of IoT in the power transmission and distribution system
- Use of AI for electric power industry
- Cyber security
- Assessment of the state of power supply and distribution systems (e.g. assessment of actual demand when using systems that link distributed power supplies)
- ICT for communication between devices

## Session 4

Theme: Toward the Transmission/ Distribution System in the Next Generation

The realization of next generation transmission and distribution system depends on the continual effort to nurture innovative ideas and develop a safer, more convenient, efficient and sophisticated technologies. This session enables the speakers to share their vision and research findings on innovative ideas, related matters and company strategies.

## Poster Session

The Poster of each session will be presented in the main hall.

Poster Session is intended to lead more detailed discussions in front of the poster in the conference (Coffee break, Lunch time etc.).

## Technical Tour (optional)

Visiting Keage Power Station with lunch, and Kinkakuji Golden Pavilion

## IERE 50th Anniversary Session

IERE is an international organization for the exchange of information on electric utility research and development established in October 1968 under the strong support and encouragement extended by leaders of electric utility industries of North America, Europe and Japan.

During the 1990s, IERE experienced the big change of the needs of members which arose from changes in the global electricity business. At a meeting held in Hiroshima in 2000, IERE decided to change strategically and introduced re-engineering to meet the challenges of the 21st century.

At the 50th anniversary of establishment, IERE invites two seniors deeply involved in IERE to give lectures on IERE's past activities, transformation and future prospects.



**Mr. Roger Ballay**

IERE Advising Chair Emeritus, France



**Mr. Gregory Tosen**

IERE Chair  
PIESA, South Africa



## Program:

*Session structure, speakers and timetable are subject to change.*

### Welcome Reception

**Monday, May 21, 2018**  
*Kyoto Hotel Okura, 3F 'SUIUN Banquet room'*

- |               |                        |
|---------------|------------------------|
| 17:30 –       | Registration           |
| 18:00 – 20:00 | IERE Welcome Reception |

### The 18<sup>th</sup> IERE General Meeting and Japan Forum

- Day 1 -

**Tuesday, May 22, 2018**  
*Kyoto Hotel Okura, 4F 'GYOUN Banquet room'*

- |               |              |
|---------------|--------------|
| 08:30 – 09:00 | Registration |
|---------------|--------------|

#### Opening Session

- |               |     |   |
|---------------|-----|---|
| 09:00 – 09:05 | O-1 | Opening Address<br><i>Mr. Gregory Tosen</i><br><i>(Chair of IERE, South Africa)</i>   |
| 09:05 – 09:10 | O-2 | Welcome Address<br><i>Dr. Shirabe Akita</i><br><i>(Executive Vice President, Central Research Institute of Electric Power Industry (CRIEPI), Japan)</i> |

#### Keynote Addresses

- |               |     |   |
|---------------|-----|---|
| 09:10 – 09:40 | K-1 | 'Energy of the New Inspires the Venerable'<br><i>Mr. Lawrence Orsini</i><br><i>(CEO, LO3 Energy, USA)</i>   |
| 09:40 – 10:10 | K-2 | 'The electricity distribution networks, vectors and actors of the energy transition'<br><i>Prof. Michel Derdevet</i><br><i>(Member of the Executive Board, Secretary General, Enedis, France)</i> |
| 10:10 – 10:30 |     | <u>Coffee Break</u>   |



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## Session 1: New trends and requirements in the field of transmission and distribution systems

*Chair person: Dr. Hiroshi Asano, Associate Vice President, Central Research Institute of Electric Power Industry (CRIEPI), Japan*

- 10:30 – 10:55 S1-1 ‘Integration of renewables using smart and hybrid solutions’  
*Prof. Dr. Wolfram Münch*  
*(CSO, Director, Research & Development Department, EnBW Energie Baden-Württemberg AG, Germany)*
- 10:55 – 11:20 S1-2 ‘Recent examples of efforts by advanced aggregators to expand their renewable energy growth rate’  
*Dr. Joji Kawano*  
*(Deputy Senior Research Associate, Research Department, Japan Electric Power Information Center (JEPIC), Japan)*
- 11:20 – 11:45 S1-3 ‘(tentative) Demonstration Project of KANSAI EPCO’s Virtual Power Plant’  
*Mr. Ken Asajima*  
*(Senior Research Engineer, Advanced Technology Laboratory, R&D Center, Research & Development Department, The Kansai Electric Power Co., Inc., Japan)*
- 11:45 – 13:00 Lunch Break [ Kyoto Hotel Okura, 3F ‘SUIUN Banquet room’ ]
- 13:00 – 13:25 S1-4 ‘Estimation of Time-series Data of Electricity Demand in Distribution Network based on Public Statistical Data’  
*Mr. Yasuyuki Kunii*  
*(Manager, Network group, Energy Applications R&D Center, R&D Division, Chubu Electric Power Co., Inc., Japan)*
- 13:25 – 13:50 S1-5 ‘Design and Implementation of Extensible Framework for Management and Control Information System of Power Grid Maintenance’  
*Mr. Yichuan Bai*  
*(Deputy General Manager, Information & Communication Technology Company, NARI Group Corporation, China)*
- 13:50 – 14:15 S1-6 ‘Development of Analysis Tool of Distribution System in Local Energy Community’  
*Dr. Hiroyuki Hatta*  
*(Senior Research Scientist, Energy Innovation Center, Central Research Institute of Electric Power Industry (CRIEPI), Japan)*

14:15 – 14:40 S1-7 ‘The new world of energy: Engie’s vision’  
*Dr. Isabelle Moretti*  
(*Scientific Director*, ENGIE, France)

14:40 – 15:25 Coffee Break and Poster Session

< Poster Session >

- P-1 ‘Development and Practical Use of Prediction System for PV Output’  
*Mr. Kiyoshi Takigawa*  
(*Principal Engineer, Power Engineering Department,, Shikoku Research Institute Inc., Japan*)
- P-2 ‘The Series Arc Fault Detection System Using Discrete Wavelet Transforms in a Grid Connected PV’  
*Mr. Dimas Bangun Fiddiansyah*  
(*Management Asset of Transmission and Distribution, Operation Division of East Java, Bali & Nusa Tenggara, PLN, Indonesia*)
- P-3 (canceled)
- P-4 ‘Interpretation of Types of Faults in Power Transformers through Dissolved Gas Analysis’  
*Mr. Dongjin Kweon*  
(*Principal Researcher, R&D Section, Korea Electric Power Corporation (KEPCO), Korea*)
- P-5 ‘Noteworthy examples of the use of ICT technology to support power transmission and distribution system in New York State’  
*Mr. Masaya Kuboki*  
(*Research Associate, Research Department, Japan Electric Power Information Center (JEPIC), Japan*)
- P-6 ‘Fog-Computing-based Smart Meters for Improving the Security of an Advanced Metering Infrastructure’  
*Dr. Mohammadreza Tarihi*  
(*Faculty, Communication Research Group, Niroo Research Institute, Iran*)
- P-7 (moved to S3-5)

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- P-8 ‘Recent R&D progress of BESS in Kansai EPCO’  
*Mr. Fujio Iwata*  
(Advanced Technology Laboratory, *R&D Center, Research & Development Department, The Kansai Electric Power Co., Inc., Japan*)
- P-9 ‘Development of Communication Platform for Next Generation Distribution and Demand-Side Systems’  
*Mr. Hiroyuki Yusa*  
(Senior Research Scientist, System Engineering Laboratory, Central Research Institute of Electric Power Industry (CRIEPI), Japan)
- P-10 ‘Online Pre-calculating System Stabilizing Controller For Power System Operation’  
*Mr. Tomohiro Hoshino*  
(Transmission and Grid Solution Systems Div., Power Grid Automation & Smart Grid Solution Engineering Dept., Toshiba Energy Systems & Solutions Co., Japan)
- P-11 ‘BEST PATHS Project: State of the art technologies for enabling energy transition’  
*Mr. Miguel Lorenzo*  
(*Project Manager, Innovation Department, REE, Spain*)
- P-12 ‘The Utilization Possibility of Electric Vehicles for Regulation Resources and Impact on Power Flow of Distribution System’  
*Mr. Eitaro Omine*  
(Research Scientist, Energy Innovation Center, Central Research Institute of Electric Power Industry (CRIEPI), Japan)
- P-13 ‘Development of Next-Generation Type of Local Voltage Control Method based on Database of Distribution System Status’  
*Mr. Naoyuki Takahashi*  
(Research Scientist, Energy Innovation Center, Central Research Institute of Electric Power Industry (CRIEPI), Japan)
- P-14 ‘Development of an Electromagnetic Transient Analysis program for Power System Simulations - XTAP’  
*Mr. Yohei Tanaka*  
(Energy Innovation Center, Central Research Institute of Electric Power Industry (CRIEPI), Japan)

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## Session 2: Technology for power transmission and distribution systems in the next generation

*Chair person: Dr. Hiromu Kobayashi, Executive Research Scientist, Central Research Institute of Electric Power Industry (CRIEPI), Japan*

- 15:25 – 15:50 S2-1 ‘Application of Plug & Play Devices in Comprehensive Energy Service’  
*Dr. Zhipeng Lv*  
*(Senior Engineer, Power Distribution Department, China Electric Power Research Institute, China)*
- 15:50 – 16:15 S2-2 ‘Grids and Bits - how DSO’s can profit from innovative data & energy analytics’  
*Dr. Felix Cebulla*  
*(Corporate Technology, Strategy & Technology, innogy SE, Germany)*
- 16:15 – 16:40 S2-3 ‘Estimation of Frequency of Lightning Strokes to Distribution Lines Based on An Observation of Lightning Channels’  
*Mr. Kenichi Kanatani*  
*(Engineering Research & Development Center, Hokuriku Electric Power Company, Japan)*
- 16:40 – 17:05 S2-4 ‘A Decentralized and Cooperative Voltage Control Scheme for Increasing Hosting Capacity’  
*Mr. Won Nam Koong*  
*(Senior Researcher, KEPCO Research Institute, Korea Electric Power Corporation(KEPCO), Korea)*
- 17:05 – 17:30 S2-5 ‘Advanced Challenge of Kyushu EPCO due to Rapid PV Penetration’  
*Dr. Tsuyoshi Harimoto*  
*(Manager, Research Institute, Technical Solution Headquarters, Kyushu Electric Power Co., Inc., Japan)*
- 17:30 – 17:40 Coffee Break

## IERE 50th Anniversary Session

*MC: Dr. Takao Watanabe, Secretary General, IERE, Japan*

- 17:40 – 18:10 AN-1 (TBD)  
*Mr. Roger Ballay*  
*(Advising Chair Emeritus, IERE, France)*

18:10 – 18:40 AN-2 (TBD)  
*Mr. Gregory Tosen*  
*(Principal Researcher, Chair of IERE, South Africa)*

19:00 – 21:00 Dinner [*Kyoto Hotel Okura, 3F ‘SUIUN Banquet room’*]

**The 18<sup>th</sup> IERE General Meeting and Japan Forum**  
- Day 2 -

**Wednesday, May 23, 2018**  
*Kyoto Hotel Okura, 4F , ‘GYOUN Banquet room’*

**IERE General Session [I]**

08:30 - 08:45 GS-1 ‘Report of IERE activities by IERE chair’  
*Mr. Gregory Tosen (Chair of IERE, South Africa)*

08:45 - 09:00 GS-2 ‘Report of IERE board meeting and progress’  
*Dr. Takao Watanabe (Secretary General, IERE central office)*

**IERE General Session [II]**

The report of in-depth research on AI (Artificial Intelligence) by young engineers/researchers as part of IERE Technology Foresight project

*Chair person: Dr. Takao Terano, Professor Emeritus of Tokyo Institute of Technology & University of Tsukuba, and Special Appointed Professor, Chiba University of Commerce, Japan*

09:00 - 09:25 SS-1 ‘(tentative) The report of in-depth research on AI’  
*Dr. Cheuk Wing Lee (Assistant Manager, Group Sustainability, CLP Power Hong Kong, Hong Kong SAR)*

09:25 – 09:40 Discussion with floor

09:40 – 09:50 Coffee Break

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### Session 3: Use of ICT (including AI and IoT) and its impact on power transmission and distribution systems

*Chair person: Dr. Zhipeng Lv, Senior Engineer, Power Distribution Department, China Electric Power Research Institute, China*

- 09:50 – 10:15 S3-1 ‘Introduction of Next-gen AMI System in Taiwan’  
*Mr. Che-I Lin*  
*(Electrical Engineer, TPRI, Taiwan Power Company, Taiwan)*
- 10:15 – 10:40 S3-2 ‘Next-Generation Supervisory Control System Capable of Integrated Management of Power Transmission and Distribution Systems’  
*Mr. Hiroaki Fujiura*  
*(Transmission & Distribution Systems Div., Toshiba Energy Systems & Solutions Co., Japan)*
- 10:40 – 11:05 S3-3 ‘The Situation and Future of the Technology for IEC 61850 based Substation Automation System in Korea’  
*S. K. Kim*  
*(Principal Researcher, Power Transmission Lab., KEPCO Research Institute, Korea Electric Power Corporation (KEPCO), Korea)*
- 11:05 – 11:30 S3-4 ‘IoT in Electric Power Utility: Priorities and Challenges’  
*Mrs. Maryam Shabro*  
*(Project manager, Telecommunication Department, Niroo Research Institute, Iran)*
- 11:30 – 11:55 S3-5 ‘Architecture of Dispatching and Control Cloud and Its Application Prospect’  
*Dr. Zhenyu Chen*  
*(Senior Engineer, Power Automation Department, China Electric Power Research Institute, China)*
- 11:55 – 12:20 S3-6 ‘Application of Wearable Devices for Efficient Maintenance Work of Transmission Lines’  
*Mr. Kenichiro Yao*  
*(Researcher, Power System Group, Electric Power R&D Center, R&D Division, Chubu Electric Power Co., Inc., Japan)*
- 12:20 – 13:35 Lunch Break [Kyoto Hotel Okura, 4F , ‘GYOUN Banquet room’]

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## Session 4: Toward the Transmission/Distribution System in the Next Generation

Chair person: *Dr. Zainal Arifin, Senior Manager, Technology Development and Standardization, PLN, Indonesia*

- 13:35 – 14:00 S4-1 ‘The feasibility of PV for distributed power generation; an assessment of PV farms for replacing diesel in Indonesia’  
*Dr. Zainal Arifin*  
(Senior Manager, Technology Development and Standardization, PLN, Indonesia)
- 14:00 – 14:25 S4-2 ‘Research and Application of Centralized Islanding Detection Method with Renewable Energy Source’  
*Ms. Chenghong Tang*  
(Deputy Chief Engineer, Technology Center, NARI Group Corporation, China)
- 14:25 – 14:50 S4-3 ‘Research and Trial Application of Mobile Sensing and Interactive Diagnostic Technology for Power Cable Lines’  
*Mr. Benhong Ouyang*  
(Director, *Power Cable Technology Section and Senior Engineer, High Voltage Dept.*, China Electric Power Research Institute, China)
- 14:50 – 15:10 Coffee Break
- 15:10 – 15:35 S4-4 ‘Effective application of ECO-Cutes (heat pump water heater) as a VPP energy resource’  
*Mr. Nobuhisa Sakai*  
(Senior Research Engineer, *Energy Use Technology Laboratory, R&D Center, Research & Development Department, The Kansai Electric Power Co., Inc.*, Japan)
- 15:35 – 16:00 S4-5 ‘Largest single-phase green transformer with natural ester at 420 kV and tests comparison with mineral oil’  
*Mr. Miguel Lorenzo*  
(*Project Manager, Innovation Department, REE, Spain*)
- 16:00 – 16:25 S4-6 ‘Realizing the hidden capacity of transmission line by means of on-line monitoring systems’  
*Dr. Mojtaba Gilvanejad*  
(*Head of transmission & substation equipment department, Niroo Research Institute, Iran*)

### Closing Remarks

16:25 – 16:30 *Dr. Takao Watanabe (Secretary General, IERE Central Office)*



## Social Event (optional)

17:00 – 21:30 Japanese Traditional performing arts and dinner

- Hankyu Travel International is assigned as an operating travel agent by IERE. Please visit following website.  
URL: [http://traveltojapan.hankyu-travel.com/en/tour/detail\\_d.php?p\\_course\\_id=SP002A&p\\_hei=99](http://traveltojapan.hankyu-travel.com/en/tour/detail_d.php?p_course_id=SP002A&p_hei=99)
- The deadline for application: ~~Tuesday, April 17, 2018~~ **Monday, May 7, 2018.**
- For questions on the event, please contact Mr. Wada of IERE Central Office at the email address below.  
**register (at) iere.jp** [Please substitute “(at)” with “@”]



## Technical Tour (Optional) - Day 3 -

*Thursday, May 24, 2018*

Visiting Keage Power Station with lunch, and Kinkakuji Golden Pavilion

10:10 – 15:00                      Visiting Keage Power Station with lunch, and Kinkakuji Golden Pavilion

- Hankyu Travel International is assigned as an operating travel agent by IERE. Please visit following website.  
URL: [http://traveltojapan.hankyu-travel.com/en/tour/detail\\_d.php?p\\_course\\_id=SP003A&p\\_hei=99](http://traveltojapan.hankyu-travel.com/en/tour/detail_d.php?p_course_id=SP003A&p_hei=99)
- The deadline for application: ~~Tuesday, April 17, 2018~~ **Monday, May 7, 2018.**
- For questions on the event, please contact Mr. Wada of IERE Central Office at the email address below.  
**register (at) iere.jp** [Please substitute “(at)” with “@”]

\*For Japanese participants:

This tour is planned especially for the participants from overseas to the 18th IERE General Meeting & Japan Forum. Japanese participants who would like to join this technical tour should contact Mr. Wada of IERE Central Office by email individually before making a reservation.

**register (at) iere.jp** [Please substitute “(at)” with “@”]

## Conference Venue

### Venue

*Welcome Reception:*

Kyoto Hotel Okura, 3F ‘SUIUN Banquet room’

*General Meeting & Japan Forum:*

Kyoto Hotel Okura, 4F ‘GYOUN Banquet room’

< Kyoto Hotel Okura >

Kawaramachi-Oike, Nakagyo-ku, Kyoto 604-8558, Japan

URL: <http://okura.kyotohotel.co.jp/english/>



Map URL: <https://goo.gl/maps/jZX6c32oLer>

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## Call for Papers (closed)

<<Abstract Submission: No later than **March 1, 2018**>>

You are kindly invited to submit abstract for Oral Session or Poster Session of General Meeting and Japan Forum by e-mail by March 1, 2018

- S-1: New trends and requirements in the field of transmission and distribution systems
- S-2: Technology for power transmission and distribution systems in the next generation
- S-3: Use of ICT (including AI and IoT) and its impact on power transmission and distribution systems

to: **register (at) iere.jp** [Please substitute “(at)” with “@”]

IERE Central Office  
2-11-1 Iwado Kita, Komae-shi, Tokyo 201-8511, Japan  
Phone: +81-3-5438-1717 Fax: +81-3-3488-5100

As for a format of abstract, please refer to the ‘Activities’ page on IERE website.

URL: <https://www.iere.jp/events/forum/2018-japan/forspeakers.html>

- \* Session structure is subject to change according to the submission of contributions.
- \* There is a possibility we ask you to change from Oral Session to Poster Session in accordance with the number of submission of abstracts.
- \* Abstract and presentation file are uploaded IERE’s website and open to the public after the forum.
- \* The official language is English.

## Submission Items & Deadlines

### For Participants [including speakers]

Items	Format No.	Deadline	Submit To:
Registration Form (Page 26)	1	April 24, 2018	Dr. Takao Watanabe <a href="mailto:register(at)iere.jp">register(at)iere.jp</a> [Please substitute (at) with @]
Form for Visa Application Documents (If necessary, Page 27)	5	<del>April 6, 2018</del> (Strict deadline) *	Ditto
Registration Fee	—	April 24, 2018	Please refer to Page 21
Social Event [optional] Application and Fee	—	<del>April 17, 2018</del> May 7, 2018	Hankyu Travel International, a travel agency in Japan, treats application, payment and tour operation.
Technical Tour [optional] Application and Fee	—	<del>April 17, 2018</del> May 7, 2018	Hankyu Travel International, a travel agency in Japan, treats application, payment and tour operation.

\* **Submission received after April 6, 2018 CAN NOT be processed because of internal processes in CRIEPI.**

### For Speakers

Items	Format No.	Deadline	Submit To:
Abstract	2	<del>March 1, 2018</del>	Dr. Takao Watanabe <a href="mailto:register(at)iere.jp">register(at)iere.jp</a> [Please substitute (at) with @.]
Speaker's Information	3	April 24, 2018	
Copyright Permission	4	April 24, 2018	
Presentation Slides (PowerPoint file)	—	May 7, 2018	

The formats (No.1 to 5) can be downloaded from

URL: <https://www.iere.jp/events/forum/2018-japan/forspeakers.html>

Speakers are requested to submit their Speaker's Information and Copyright Permission **by April 24, 2018** and their Presentation Slides (PowerPoint file) **by May 7, 2018**.

\* Abstract and presentation file are uploaded IERE's website and open to the public after the forum.

## Information on Presentation:

### Oral Session:

Speakers may only use PowerPoint files for their presentations.

Speakers at all sessions are required to arrive at the session at least 15 minutes in advance of the first paper and be seated at the front of the room.

Speakers are expected to get in contact with the Session Chair and confirm the PowerPoint files before the session begins.

The session room will be equipped with a laptop computer loaded with Microsoft software and an LCD projector.

Each presentation is strictly limited to 25 minutes max., which includes approximately 5 minutes for Q&A.

PowerPoint files for the presentations are uploaded on IERE's website approximately one week before the forum for participants to download.

IERE will post the presentations on the IERE website after the forum for general public viewing.

### Poster Session:

Presenters are requested to print their posters in A0 (approx. 119 cm x 84 cm / 47" x 33") Format and bring with them. PowerPoint files of their posters are requested to submit by May 7 for uploading IERE website prior to the conference.

- One poster A0 in portrait orientation or two pages A1 in landscape orientation
- The Posters in A0 size will be displayed on the site at the back of the main meeting room.
- Presenters are kindly requested to stay around their posters at coffee break period. Main discussion period is afternoon coffee break on May 22.

### Language

The official language is English.

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## Registration

(a) On-line Registration

URL: [https://www.iere.jp/cgi-bin/event\\_form/18GM/event\\_form\\_entry.cgi](https://www.iere.jp/cgi-bin/event_form/18GM/event_form_entry.cgi)

or

(b) Please submit a registration form (Format 1, Page 26) to IERE Central Office by e-mail.

(c) As for Social Event and Technical Tour, Hankyu Travel International, a travel agency in Japan, treats application, payment and tour operation. Please visit website shown below.

URL for Social Event :

[http://traveltojapan.hankyu-travel.com/en/tour/detail\\_d.php?p\\_course\\_id=SP002A&p\\_hei=99](http://traveltojapan.hankyu-travel.com/en/tour/detail_d.php?p_course_id=SP002A&p_hei=99)

URL for Technical Tour:

[http://traveltojapan.hankyu-travel.com/en/tour/detail\\_d.php?p\\_course\\_id=SP003A&p\\_hei=99](http://traveltojapan.hankyu-travel.com/en/tour/detail_d.php?p_course_id=SP003A&p_hei=99)

**Deadline: April 24, 2018 (The 18<sup>th</sup> IERE General Meeting and Japan Forum)**

**Deadline: May 7, 2018 (Social Event and Technical Tour)**

## Registration Fee

The Registration fee will cover attendance at both conference days (include lunches & refreshments at coffee breaks), welcome reception on May 21, dinner on May22 and conference package:

**IERE members: US\$ 550 (or JPY 60,709)**

**Non-members: US\$ 650 (or JPY 71,747)**

**Academia: US\$ 350 (or JPY 38,633)**

### **Social Event (optional):**

Hankyu Travel International, a travel agency in Japan, treats application, payment and tour operation. Please visit website shown below and check fee.

URL: [http://traveltojapan.hankyu-travel.com/en/tour/detail\\_d.php?p\\_course\\_id=SP002A&p\\_hei=99](http://traveltojapan.hankyu-travel.com/en/tour/detail_d.php?p_course_id=SP002A&p_hei=99)

### **Technical Tour (optional):**

Hankyu Travel International, a travel agency in Japan, treats application, payment and tour operation. Please visit website shown below and check fee.

URL: [http://traveltojapan.hankyu-travel.com/en/tour/detail\\_d.php?p\\_course\\_id=SP003A&p\\_hei=99](http://traveltojapan.hankyu-travel.com/en/tour/detail_d.php?p_course_id=SP003A&p_hei=99)

## Accompanying Person

If your family accompanies you on reception/dinner, following fees are requested.

**Welcome Reception on May 21: US\$ 50 (or JPY 5,519)**

**Dinner on May 22: US\$ 75 (or JPY 8,279)**

\* Only one accompanying person is permitted because of limited capacity.

## Payment

On-line Credit Card Payment and Bank Transfer are available.

**Deadline: April 24, 2018**

### (a) On-line Credit Card Payment

If you prefer using your credit card for the payment of registration fee, please contact to following website (US\$ only);

URL: [https://www.iere.jp/Payment/paypal\\_18GM.html](https://www.iere.jp/Payment/paypal_18GM.html)

### (b) Bank Transfer\*

Name of the Bank\*\*: The Bank of Tokyo-Mitsubishi UFJ, Ltd. (until March 31, 2018)  
MUFG Bank, Ltd.(from April 1, 2018)

Name of the Branch: Seijo branch

Name of the account: IERE

Account Number: 1204581

Bank address: 15-1 Seijo 6-chome, Setagaya-ku, Tokyo, 157-0066 JAPAN

SWIFT code:

\* Remittance charge, Lifting charge, Correspondent charge and other charges should be paid by participants.

\*\* Name of the Bank will be changed on April 1, 2018.

### (c) Social Event and Technical Tour

Hankyu Travel International, a travel agency in Japan, treats application, payment and tour operation. The deadline for application and payment: ~~April 17, 2018~~ **May 7, 2018**

URL for Social Event :

[http://traveltojapan.hankyu-travel.com/en/tour/detail\\_d.php?p\\_course\\_id=SP002A&p\\_hei=99](http://traveltojapan.hankyu-travel.com/en/tour/detail_d.php?p_course_id=SP002A&p_hei=99)

URL for Technical Tour:

[http://traveltojapan.hankyu-travel.com/en/tour/detail\\_d.php?p\\_course\\_id=SP003A&p\\_hei=99](http://traveltojapan.hankyu-travel.com/en/tour/detail_d.php?p_course_id=SP003A&p_hei=99)

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## Visa (Please do not forget!) (closed)

For participants from some countries needing a Visa to enter Japan, please consult with travel agent in your own country for the details.

If you need Visa application documents (include invitation letter)\*, please fill and send ‘Submission Form for Visa Application Documents’ on Page 16 to IERE Central Office. Be sure to submit it **by April 6, 2018**.

- \* CRIEPI may be able to issue Visa application documents (include invitation letter) for participants who need to apply for Visa. It may take a few weeks to complete the procedures in CRIEPI, so please submit the form to IERE Central Office as soon as possible.
- \* **Submission received after April 6, 2018 CAN NOT be processed because of internal processes in CRIEPI.**
- \* Disclaimer: CRIEPI reserves the right to fulfill or decline, at CRIEPI’s discretion, requests for documents for visa application support purpose.

### [Reference information]

Ministry of Foreign Affairs of Japan ‘VISA / Residing in Japan’

URL: [www.mofa.go.jp/j\\_info/visit/visa/index.html](http://www.mofa.go.jp/j_info/visit/visa/index.html)



## Accommodations [A block of rooms at special rates]

### - Kyoto Hotel Okura

A block of rooms at special rates has been reserved for conference participants.

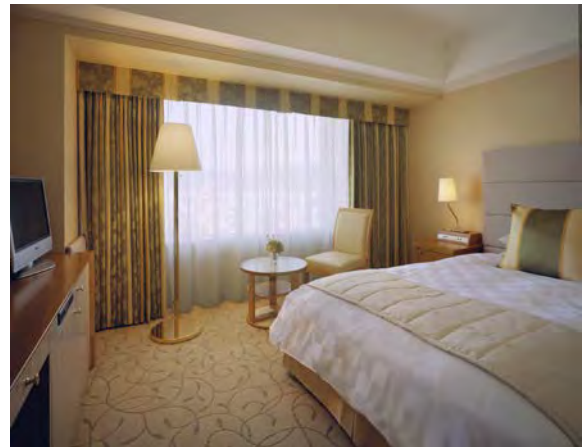
#### *How to book at special rates?*

1) Visit the following website

URL: [http://rsv.ihonex.com/cgi-bin/ihonex3/plan\\_shokai.cgi?hid=KHO&plan\\_groupcd=IERE&c=1&form=en](http://rsv.ihonex.com/cgi-bin/ihonex3/plan_shokai.cgi?hid=KHO&plan_groupcd=IERE&c=1&form=en)

2) At the part of the site, please click the ‘View all rooms’ then ‘Calendar’ of your selected room category and proceed in accordance with your stay.

- \* As the number of rooms blocked at the special rate is limited, please make reservations as early as possible.
- \* To book at “Special Rates”, reservation should be completed by May 5, 2018 (Japan time).
- \* “Special Rates” reservation may be terminated earlier than that in the event of becoming full.



## - Recommended Hotels and information about Kyoto

Please visit website of 'Kyoto City Official Travel Guide' shown below.

<https://kyoto.travel/en>



You can find recommended hotels from 'Accommodations'.

URL: <https://kyoto.travel/en/planyourvisit/accommodations>

## REGISTRATION FORM

Format 1

### Power transmission and distribution systems in the next generation

The 18th IERE General Meeting & Japan Forum

May 21-24, 2018, Kyoto, Japan

Please type  at appropriate boxes, then return this form by email **NO LATER THAN April 24, 2018** to:  
IERE Central Office at Email: **register(at)iere.jp** [Please substitute (at) with @] / Fax: +81-3-3488-5100

1. Name	<input type="checkbox"/> Prof. <input type="checkbox"/> Dr. <input type="checkbox"/> Mr. <input type="checkbox"/> Ms. <input type="checkbox"/> Other, Please specify:	
	First Name	Family Name
2. Position, Department		
3. Company/ Organization etc.		
4. Address	Zip Code	Country/Region
5. Contact Information	E-mail	
	Phone Number	
	Fax Number	
6. I will contribute to a presentation	<input type="checkbox"/> Yes <input type="checkbox"/> No Title: _____	
7. Registration Fee [May 21-23]	Registration Fee [Participants including speakers should pay registration fees.] <input type="checkbox"/> US\$ 550 (or JPY 60,709) : <b>IERE Member</b> <input type="checkbox"/> US\$ 650 (or JPY 71,747) : <b>Non-IERE Member</b> <input type="checkbox"/> US\$ 350 (or JPY 38,633) : <b>Academic Participant</b> Note: When participation is canceled irrespective of the reason after May 7, 2018, Registration Fee might be charged or not be reimbursed.	
8. Social Event (Optional) [May 23]	Japanese Traditional performing arts and dinner You can apply from URL below by <del>April 17, 2018</del> <b>May 7, 2018</b> . <a href="http://bit.ly/2FTPBE3">http://bit.ly/2FTPBE3</a> (Connected to Hankyu Travel International)	
9. Technical Tour (Optional) [May 24]	Visiting Keage Power Station with lunch, and Kinkakuji Golden Pavilion You can apply from URL below by <del>April 17, 2018</del> <b>May 7, 2018</b> . <a href="http://bit.ly/2pvXrcI">http://bit.ly/2pvXrcI</a> (Connected to Hankyu Travel International)	
10. Reception/Dinner attendance <span style="border: 1px solid black; padding: 2px;">not mandatory</span>	Registration Fee covers the welcome reception and dinner (as well as lunch on May 22 & 23). For reservations, please let us know your attendance. <input type="checkbox"/> <b>Welcome Reception on May 21</b> <input type="checkbox"/> <b>Dinner on May 22</b> <input type="checkbox"/> <b>None</b>	
11. Accompanying Person (One person only)	If your family accompanies you on reception/dinner, please write her or his name and title (Mr./Ms./ ) _____ <input type="checkbox"/> US\$ 50 (or JPY 5,519) : <b>Welcome Reception on May 21</b> <input type="checkbox"/> US\$ 75 (or JPY 8,279) : <b>Dinner on May 22</b>	
12. Payment Amount	Total : US\$ _____	
13. Payment Method [no later than April 24]	<input type="checkbox"/> <b>Credit Card: URL for On-line Credit Card Payment (in US\$):</b> <a href="https://www.iere.jp/Payment/paypal_18GM.html">https://www.iere.jp/Payment/paypal_18GM.html</a> <input type="checkbox"/> <b>Bank Transfer</b> * IERE Central Office will send you the invoice.	
14. Documents for VISA	<input type="checkbox"/> I need an invitation letter/documents for Visa application <input type="checkbox"/> <b>No</b> * Please refer our Announcement Document. <b>Strict deadline: April 6, 2018</b>	
15. Information from IERE	Do you agree with receiving e-mail notice on future activities/IERE E-mail Magazine from IERE Central Office? <input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>No</b>	

**Central Office plans to distribute 'Participants list' with conference kit to facilitate communication among participants. The list will contains '1. Name', '2. Position, Department', '3. Company/ Organization etc.' and '4. e-mail address' of this format.**

**If you DON'T want to open these information, please type '✓' at appropriate boxes shown below.**

2. Position, Department  4. e-mail address

## Submission Form for Visa Application Documents

If participants need Visa application documents (include invitation letter), please type  and fill out the form and send to: IERE Central Office at Email: register(at)iere.jp [Please substitute (at) with @].

Be sure to submit it **by April 6, 2018**.

**Submission received after April 6, 2018 CAN NOT be processed because of internal processes in CRIEPI.**

<input type="checkbox"/> <b>I need Visa Application Documents (include invitation letter) for participation of the 18th IERE General Meeting &amp; Japan Forum.</b> * CRIEPI may be able to issue Visa application documents (include invitation letter) for participants who need to apply for Visa. It may take a few weeks to complete the procedures in CRIEPI, so please submit the form as soon as possible. Disclaimer: CRIEPI reserves the right to fulfill or decline, at CRIEPI's discretion, requests for letters of invitation for Visa application support purposes.			
Name on passport	First Name:	Middle Name:	Family Name:
Gender	<input type="checkbox"/> Male <input type="checkbox"/> Female		
Date of birth			
Nationality			
Occupation			
Company/ Organization etc.			
Expected date of entry			
Flight information of entry			
Expected date of departure			
Flight information of departure			
Accommodation/ Hotel			
Contact information (Mobile phone number)			
Colloquium Participation	<input type="checkbox"/> May 21, Welcome Reception		
	<input type="checkbox"/> May 22, The 18th IERE General Meeting & Japan Forum (Day 1)		
	<input type="checkbox"/> May 23, The 18th IERE General Meeting & Japan Forum (Day 2)		
	<input type="checkbox"/> May 24, Technical Tour		

**IERE Members List (as of February 1, 2018)**

Australia	CS Energy Ltd.	CSIRO	
Canada	Powertech Labs Inc.		
China	CEPRI	GPG	NARI
France	Enedis	ENGIE	
Germany	EnBW	innogy SE	RWE TI
Hong Kong	CLPRI		
Indonesia	PLN		
Iran	NRI		
Japan	Chubu EPCO	Chugoku EPCO	CRIEPI
	FEPC	Fuji Electric Co., Ltd.	Hitachi
	Hokkaido EPCO	Hokuriku EPCO	IHI
	J-POWER	JAPC	Kansai EPCO
	Kyushu EPCO	MHPS	Mitsubishi Electric
	NGK	Sumitomo Electric	Shikoku EPCO
	Tohoku EPCO	TEPCO	TOSHIBA
Korea	KEPCO	KEPCO E&C	KERI
Malaysia	TNB		
Mexico	INEEL	Prolec GE	
Philippines	APC	MERALCO	
Singapore	SPPG		
South Africa	Eskom	PIESA	
Spain	Gas Natural Fenosa	REE	
Taiwan	TPC		
Thailand	EGAT	EURC*	
U.S.A.	EPRI		

\*: Academia



## Organizers

### **Central Research Institute of Electric Power Industry (CRIEPI)**

Otemachi Bldg. 7F, 1-6-1 Otemachi, Chiyoda-ku, Tokyo

<http://www.denken.or.jp/en/index.html>

### **The Kansai Electric Power Co., Inc. (Kansai EPCO)**

3-6-16 Nakanoshima, Kita-ku, Osaka

<http://www.kepco.co.jp/>

### **IERE:**

IERE Central Office

2-11-1 Iwado Kita, Komae-shi, Tokyo 201-8511, JAPAN

<https://www.iere.jp>

IERE Central Office  
2-11-1 Iwado Kita, Komae-shi  
Tokyo 201-8511 JAPAN

Phone: +81-3-5438-1717

Fax: +81-3-3488-5100

<https://www.iere.jp>

1<sup>st</sup> issue: March 28, 2018

2<sup>nd</sup> issue: April 3, 2018

3<sup>rd</sup> issue: April 4, 2018

4<sup>th</sup> issue: April 5, 2018

5<sup>th</sup> issue: April 17, 2018; Chair person of session 3 and 4 are decided. Deadline of optional events are postponed until May 7.

6<sup>th</sup> issue: April 18, 2018

7<sup>th</sup> issue: April 24, 2018; Program of session 3 and 4 are slightly changed