



Final Programme

(As Performed)

2016 IERE – CLP-RI Hong Kong Workshop Smart Cities

- A Convergence of People, Technologies and Big Data



21 November (Monday) – 24 November (Thursday) 2016 Hong Kong SAR, China Organized by:

CLP-RI and IERE





Outline Schedule:

Monday, 21 November 2016

18:00-21:00 Registration and Welcome Reception / Cocktail

Tuesday, 22 November 2016

09:00-18:00 2016 IERE – CLP-RI Hong Kong Workshop (Day 1) 18:00-21:00 Dinner

Wednesday, 23 November 2016

08:30-16:50 2016 IERE – CLP-RI Hong Kong Workshop (Day 2) 18:30-22:00 Social Event with Dinner (optional); Hosted by CLP

Thursday, 24 November 2016

08:30-14:30 Technical visits (optional): Smart facilities in Hong Kong

General Theme: Smart Cities

- A Convergence of People, Technologies and Big Data

Rapid urbanization is now being considered one of the megatrends that will shape our future. The phenomenal growth of Information and Communication Technologies (ICT) being deployed in recent decades has provided ubiquitous connectivity, versatile applications and intelligent automation. The notion of smart cities has gradually emerged and global cities like Barcelona, Seattle, Yokohama, Seoul, Singapore and Hong Kong are embarking on building their own version of a smart city. Whilst there is no "one-size-fits-all" model for smart cities, they share some common attributes. The energy system represents the most fundamental and critical element that actually performs the work.

This IERE Workshop will focus on research and initiatives of how technologies, big data and their intelligent applications can bring together the people, their interactions with city facilities and infrastructure to make urban living safer, more convenient, efficient and comfortable. Although the definition of a smart city is constantly evolving, each city has its unique economic, aspirational and technological drivers that will define its version of a smart city. Ultimately, historical, cultural, political and social factors will also play a role in the final implementation. With this workshop, IERE hopes to contribute the sharing of international expertise, knowledge and experiences in building our cities of the future.



Session Themes:

Plenary Session

>Keynote Addresses

Mr. Kam-sing Wong

(GBS, JP, Secretary for the Environment, HKSAR Government, Hong Kong)

Dr. Satoshi Morozumi

(Director General, Smart Community Department, New Energy and Industrial Technology Development Organization (NEDO), Japan)

Prof. Seung Il Moon

(President of Korea Electrical Engineering & Science Research Institute, Korea)

>Special Session

Ms. Wai Fun Kee

(Industrial Principal, TechVision, Frost & Sullivan, Malaysia)

Technical Session

Session 1: Interacting with People

With ubiquitous deployment of communication networks and intelligent applications continue to rise, many Smart-X, where the X can be meters, homes, buildings and communities etc., are emerging. Furthermore, mobility, environment and citizen could be the candidate of X. This session enable the sharing of how the Smart-X interacts with people and communities to bring new or added value for the realization of a Smart City. This session include:

- Resiliency of power grids against natural disasters and catastrophes
- Prediction for weather/climate impact
- Unique sensing method for realization Smart-X
- Development and application of microgrid/nanogrids
- Integration distributed energy resources to the grid
- Research and design of demand response aggregation system



Session 2: Enabling Technologies

Advanced and new technologies are rapidly changing the landscape and business paradigm of conventional practices. What are the technologies that will smarten the city infrastructure, optimize and improve asset management? This session will focus on the development and integration of various technologies and systems to enhance different functions in a smart city. This session include:

- Development and introduction of IoT-based micro-grid
- Development and application of a smart distribution network
- Necessary technology for improving building efficiency
- Internet of things, smart sensors and applications

Session 3: Contribution of EV and Storage for Power System

EV plays the role of improving CO2 emissions for the transport sector. Once it is connected to the grid, EV works like a storage device/load. In this session, EV and storage devices are considered an important element of smart cites. This session include:

- Development of Electric Vehicle (EV) Charging System
- Current situation of EV Charging System in Asia
- Energy storage and applications in urbanized areas
- Large scale demonstration project of BESS

Session 4: Innovation & Future Technologies

The realization of any smart cities depends on the continual effort to nurture innovative ideas and implement effective applications to provide a safer, more convenient, efficient and comfortable environment to work and live. This session enables the speakers to share their vision and research findings on innovative ideas and related matters. This session include:

- How to make the electric power industry greener and related area
- Renewable energy technologies
- Hydrogen Economy
- Evaluation the value of smart grid
- Development of regional virtual power plant
- Application of heat pump for home, building and town



Session 5: Big Data & Customer Interactions

Big data comes in bulk with high speed and complex by nature. With the deployment of various Smart-X systems, managing the big data generated has to be efficient and using them intelligently for different applications also becomes a crucial factor for success. This session enables the sharing and discussion of big data management in the power sector in cities. This session include:

- Big data utilization and application to high density distribution/consumption area
- Analyzing load characteristics from big data
- Cost evaluation of smart meter
- PV generation estimation from big data
- Demand response

Moderated Panel Discussion

Theme: Challenges and Solutions to build a Smart City with Smart Power Systems [Canceled]

Poster Session

There is no poster session in this Workshop.

Who Should Attend?

The workshop is intended for experts actively involved in the selected themes, from IERE members and non-members, as well as all those interested in the evolution of the electrical power industry and the technology development and business development opportunities associated to this evolution.





Programme:

Session structure and speakers may change according to the submission of contributions.

IERE Welcome Reception

Monday, 21 November 2016
Regal Kowloon Hotel, 3rd Floor, Luxembourg Room I-III', Hong Kong

18:00 – Registration

19:00 – 21:00 IERE Welcome Reception

2016 IERE - CLP-RI Hong Kong Workshop

- Workshop Day 1 -

Tuesday, 22 November 2016
(All day long) Regal Kowloon Hotel, 3rd Floor, 'Versailles Ballroom', Hong Kong

08:30 – 09:00 Registration

Opening Session

09:00 – 09:10 O-1 Opening Address

Mr. Gregory Tosen (Chair of IERE, South Africa)

09:10 – 09:15 O-2 Welcome Address

Mrs. Betty Yuen (Group Director & Vice Chairman of CLP Power Hong Kong Limited, Hong Kong)

Keynote Addresses

09:15 – 09:35 K-1 'Climate-Smart City: Are you ready?'

Mr. Kam-sing Wong

(GBS, JP, Secretary for the Environment, HKSAR Government, Hong Kong)

09:35 – 10:10 K-2 'Experience of NEDO Smart Community Demonstration'

Dr. Satoshi Morozumi

(Director General, Smart Community Department, New Energy and Industrial Technology Development Organization (NEDO), Japan)

10:10 – 10:45 K-3 'Challenges for the Future Energy in Korea'

Prof. Seung Il Moon

(President of Korea Electrical Engineering & Science Research Institute, Korea)

10:45 – 11:20 <u>Coffee Break</u>





Special Session

11:20 - 11:40'IERE Technology Foresight 2016' Ms. Wai Fun Kee (Industry Principal, TechVision, Frost & Sullivan, Malaysia)

Session 1: Interacting with People

Chair person: Dr. Satoshi Morozumi, Director General, Smart Community Department, New Energy and Industrial Technology Development Organization (NEDO), Japan

11:40 - 12:00S1-1 'Lessons learned from the Great East Japan Earthquake - Restoration and Reconstruction of Power Facilities -' Mr. Manabu Sakata (Manager of Power Grid R&D Group, R&D Center, Tohoku Electric Power Co., Inc., Japan)

12:00 – 12:20 S1-2 'Climate Information Services in Hong Kong and Their Applications in Urban Living' Dr. Tsz-cheung Lee

(Senior Scientific Officer, Hong Kong Observatory, Hong Kong)

S1-3 'Understanding the complexities and uncertainties of climate change for effective adaptation to changing extreme weather events' Dr. Junichi Tsutsui. (Deputy Associate Vice President, Central Research Institute of Electric Power Industry (CRIEPI), Japan)

12:40 - 14:00Lunch Break

12:20 - 12:40

Session 1: Interacting with People (continued)

Chair person: Dr. Satoshi Morozumi, Director General, Smart Community Department, Energy and Industrial Technology Development Organization (NEDO), Japan

14:00 – 14:20 S1-4 'Future power grid architectures - nanogrids to super grids' Prof. David John Hill (Professor, Chair of Electrical Engineering, Department of Electrical and Electronic Engineering, The University of Hong Kong, Hong Kong)





'Multimodal Sensing for Thermal Comfort and Energy Saving in Smart 14:20 – 14:40 S1-5 Buildings' Prof. Huihe Qiu (Associate Head and Professor, Department of Mechanical and Aerospace Engineering, The Hong Kong University of Science & Technology, Hong Kong) 14:40 – 15:00 S1-6 'Development of KEPCO smart energy city operating system for integrating distributed energy resources' Mr. Jong-Uk Lee (Researcher, Microgrid & Distributed Resources Group, New Energy Business Lab., Research Institute, Korea Electric Power Corporation, Korea) 15:00 – 15:20 S1-7 'Research and Design about Information Interface of Demand Response Aggregation System based on the Internet Home Appliance' Mr. Songsong Chen (Engineer, Electricity Usage & Energy Efficiency Research Department, China Electric Power Research Institute (CEPRI), China) 'Real-time Air Quality Forecasts down to Street Scales' 15:20 – 15:40 S1-8 Prof. Jimmy Fung (Professor and Head of Division of Environment, Hong Kong University

15:40 – 16:00 Coffee Break

Session 2 : Enabling Technologies

Chair person: Mr. Eddie Zijian Wu, Director - Technical Services, Technical Services Department, PSBG, CLP Power Hong Kong Limited, Hong Kong

of Science and Technology, Hong Kong)

16:00 – 16:20 S2-1 'Construction of IoT-based Campus Micro-grid Project in South Korea'

Prof. Dongjun Won

(Associate Professor, Department of Electrical Engineering, Inha University, Korea)

16:20 – 16:40 S2-2 'Enabling Technologies for Smart Cities'

Dr. Meikei Ieong
(Chief Technology Officer, Hong Kong Applied Science and Technology Research (ASTRI), Hong Kong)

16:40 – 17:00 S2-3 'Understanding Technology Enablers for Building Efficiency 2.0'

Mr. Alex Herceg

(Analyst, Intelligent Buildings, Lux Research, The Netherlands)



17:40 – 18:00 S2-4 'Building a Smarter Power Grid for Hong Kong'

Mr. Brian Tsui

(Deputy Director - Asset Development, Asset Management Department, Power System Business Group, CLP Power Hong Kong Limited, Hong Kong)

17:20 – 17:40 S2-5 'Indoor Positioning and User Analytics for a Smart City'

Prof. Gary Chan

(Professor, Department of Computer Science and Engineering, Hong Kong University of Science and Technology, Hong Kong)

17:00 – 17:20 S2-6 'ADMS+ creating and managing the next generation of Distribution Networks'

Mr. Sukumaran Santhosh

(Vice President and Head of Sales in Software Solutions, Digital Grid, Energy Management, Asia Pacific, Siemens Pte Limited, Singapore)

18:00 – 21:00 <u>Dinner</u> [Regal Kowloon Hotel, 3rd Floor, 'Luxembourg Room I-III']

2016 IERE - CLP-RI Hong Kong Workshop

- Workshop Day 2 -

Wednesday, 23 November 2016 Regal Kowloon Hotel, 3rd Floor, 'Tivoli', Hong Kong

08:15-08:30 Registration

Session 3: Contribution of EV and Storage for Power System

Chair person: Dr. Dongxia Zhang, Deputy director, Technology Strategy Research Center, CEPRI, China

08:30 08:50 S3-1 [Canceled] 'Current Status of Chinese EV Charging Infrastructure Standardization'

Mr. Feng Ni

(Deputy Director, International Department, NARI Group, China)

08:30 – 08:50 S3-2 'Accelerating the popularization of electric and plug-in hybrid vehicles for realizing a low-carbon society in Japan'

Dr. Tomohiko Ikeya

(Associate Vice President, Materials Science Laboratory, Central Research Institute of Electric Power Industry (CRIEPI), Japan)





'R&D and Deployment of Electric Vehicle Charging Infrastructure in 08:50 - 09:10 S3-3 Korea: Progresses and outlook' Dr. Kijun Park (Principal Researcher, Advanced technology & new materials group, Creative Future Laboratory, Research Institute, Korea Electric Power Corporation, Korea) 'Optimal Charging and Discharging Scheduling of On-Board EV 09:10 – 09:30 S3-4 Chargers and ESS Considering Distribution Line Capacity, Building Load Imbalance and Peak Shaving' Mr. Gyusub Lee (Ph.D Candidate, Dept. of Electrical Engineering and Computer Science, Seoul National University, Korea) 09:30 – 09:50 S3-5 'Economic Operation of Battery Energy Storage System in Industrial Park Based on the Power Load Characteristics' Mr. Guoxin He (R&D Engineer, Technology Center, NARI Group Corporation (State Grid Electric Power Research Institute), China) 09:50 – 10:10 S3-6 'Demonstration Project Utilizing Hybrid Battery Energy Storage System in the Oki-Islands' Mr. Motohiro Mikawa (Manager, Energia Economic & Technical Research Institute, The Chugoku Electric Power Co., Inc., Japan)

10:10 – 10:45 <u>Coffee Break</u>

Session 4: Innovation & Future Technologies

Chair person: Mr. Friedrich Schulte, R&D, Head of Technology/ R&D Strategy, innogy SE, Germany

10:45 – 11:05 S4-1 'Development of countermeasure technology against biodiversity conservation regulations related to the electric power industry'

Dr. Sonoko Tsuda

(Manager, Energy Applications R&D Center, R&D Division, Chubu Electric Power Co., Inc., Japan)

11:05 – 11:25 S4-2 'Electric Springs – A Smart Grid Technology for Taming the Intermittent
Nature of Wind and Solar Power'

Dr. Chi-Kwan Lee

(Assistant Professor, Department of Electrical and Electronic Engineering, The University of Hong Kong, Hong Kong)



11:25 – 11:45	S4-3	'Hydrogen – A zero-carbon energy vector for a change of energy systems management paradigm' Dr. Laurent Jammes (General Manager and Partner, YBL-Consulting, France)
11:45 – 12:05	S4-4	'How Green is A Smart Grid? A Multi-Agent Life-Cycle Approach' Mr. Richard Wang (Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University, Hong Kong)
12:05 – 12:25	S4-5	'A Structural Design of Regional Virtual Power Plant Specific to Industrial Development Area' Mr. Yongchao Ji (R&D Engineer, Technology Center, NARI Group Corporation (State Grid Electric Power Research Institute), China)
12:25 – 12:45	S4-6	'Experimental Investigation of a Photonic Radiative Cooler under Sub-tropical Climate' Prof. Chi Yan Tso (Research Assistant Professor, Department of Mechanical and Aerospace Engineering, and Institute for Advanced Study, The Hong Kong University of Science and Technology, Hong Kong)

12:45 - 14:00

Session 5 : Big Data & Customer Interactions

Lunch Break

Mr. Hailong Zhang

Chair person: Mr. Andre Blumberg, Director - Information Technology, CLP Power Hong Kong Limited, Hong Kong

14:00 – 14:20	S5-1	'NILM – Non Intrusive Load Monitoring' Mr. Friedrich Schulte (R&D, Head of Technology/ R&D Strategy, innogy SE, Germany)
14:20 – 14:40	S5-2	'Big Data in Urban Power Distribution and Consumption Systems' Dr. Dongxia Zhang (Deputy Director, Technology Strategy Research Center, China Electric Power Research Institute (CEPRI), China)
14:40 – 15:00	S5-3	'Life-cycle Quality Monitoring of Smart Meter and "Internet Plus Metering" Platform based on Big Data'

(Engineer, Metering Research Department, China Electric Power





15:00 – 15:20	S5-4 'Solar Irradiance Forecast Methods using Meteorological Data for Photovoltaic Generation Prediction' Mr. Satoshi Nomoto (Manager, Electric Power R&D Center, R&D Division, Chubu Electric Power Co., Inc., Japan)
15:20 – 15:40	Coffee Break
15:40 – 16:00	S5-5 'Enabling Demand Response in Electricity Retail Markets with Energy Internet Technologies' Dr. Jin Zhong (Associate Professor, Department of Electrical and Electronic Engineering, The University of Hong Kong, Hong Kong)
16:00 – 16:20	S5-6 'Empowered consumer in the energy market & the role of innovative retailers' Mr. Koen Noyens (Manager, Generation, Climate & Environment, EURELECTRIC, Belgium)
16:20 – 16:40	S5-7 'Needs and Methods of Accurate Measurements and Forecasts for PV Power Output' Mr. Masamoto Tatematsu (Senior Research Associate, Japan Electric Power Information Center (JEPIC), Japan)
16:20 16:45	Coffee Break

Moderated panel discussion : Challenges and Solutions to build a Smart City with Smart Power Systems

16:45 17:30 Panel Discussion [Canceled]

Closing Remarks

16:40 - 16:45	Dr. John Wing Mao Cheng (Senior Manager, CLP Power Hong Kong
	Limited, Hong Kong)
16:45 – 16:50	Dr. Takao Watanabe (Secretary General, IERE Central Office)





Social Event (optional)

Tour to The Peak after dinner

18:30 – 20:30 Dinner at a restaurant nearby Regal Kowloon Hotel

Restaurant "Shanghai Min"

Tsim Sha Tsui Centre UG2-13 & 45-51

20:30 Departure at Regal Kowloon Hotel to The Peak by coach

21:15 – Enjoy night view at The Peak Around 22:00 Arrival at Regal Kowloon Hotel

• The maximum number of participants is up to 65.

- The Peak tour is optional.
- · Admission will be allotted in order of application.
- ·Coach service is available between Regal Kowloon Hotel and The Peak.





Technical Tour (Optional) - Workshop Day 3 -

Thursday, 24 November 2016

Hong Kong International Airport, Hong Kong

(For participants who have booked the optional Technical Tour)

08:30 Departure at Regal Kowloon Hotel

10:00 – 12:00 Site visit to Hong Kong International Airport, Hong Kong

12:00 Departure at Hong Kong International Airport

(Move to the restaurant by way of departure terminal of the Airport by coach)

12:30 – 13:30 Lunch at restaurant nearby the Airport

Restaurant "Dragon Inn" at Regal Airport Hotel

14:30 Arrival at Regal Kowloon Hotel

- \cdot Participants are requested to show ID card / passport when entering into restricted area of the Airport.
- · Prior to the tour, Central Office request ID card / passport number, which will be transferred to Airport Authority Hong Kong with your name and affiliation for security purposes.
- · Coach service is available between Regal Kowloon Hotel and Hong Kong International Airport.
- The maximum number of participants is up to 30.
- · Admission will be allotted in order of application



Conference Venue

Welcome Reception, Dinner on 22 November and Workshop

Regal Kowloon Hotel, Hong Kong

71 Mody Road, Tsimshatsui, Hong Kong

website: http://www.regalhotel.com/mobile/regal-kowloon-hotel/en/home/home.html



Map URL: https://goo.gl/maps/6We65uBshRm





Registration

(a) On-line Registration

URL: https://www.iere.jp/cgi-bin/event_form/event_form_entry.cgi

or

(b) Please submit a registration form (Format 1, Page 13) to IERE Central Office by e-mail.

Deadline: 21 October 2016 4 November 2016

Registration Fee

Please make payment of following fee *No later than 21 October 2016* 4 *November 2016* by credit card payment or bank transfer.

The Registration fee will cover attendance at both workshop days (include lunches & refreshments at coffee breaks), welcome reception on 21 November, dinner on 22 November and conference package:

IERE members: US\$ 450.-Non-members: US\$ 500.-Academic participants: US\$ 250.-

Recommended options*

Social Event (optional): Free

Tour to the Peak after dinner on 23 November

Technical Tour (optional): US\$ 40.-

Smart facilities in Hong Kong (Hong Kong International Airport) on 24 November

* Both offers are on a first-come-first-served basis.





Payment

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

Deadline: 21 October 2016 4 November 2016

(a) On-line Credit Card Payment

If you prefer using your credit card for the payment of registration fee, please contact to this URL: https://www.iere.jp/Payment/paypal_16WS.html

(b) Bank Transfer *

Name of the Bank: The Bank of Tokyo-Mitsubishi UFJ, Ltd.

Name of the Branch: Seijo branch

Name of the account: IERE Central Office

Account Number: 1204581

Bank address: 15-1 Seijo 6-chome, Setagaya-ku, Tokyo, 157-0066 JAPAN SWIFT code: B O T K J P J T

VISA (Please do not forget!)

For participants from some countries needing a VISA to enter Hong Kong SAR, please consult with travel agent in your country for the details.

If you need an Invitation Letter*, please refer to 'Invitation Letter for VISA' on Page 20.

*CLP-RI may be able to issue an invitation letter for participants who need to apply for Visa. It may take 2 weeks to complete the procedures in CLP-RI, so please submit the form as soon as possible.

Disclaimer: CLP-RI reserves the right to fulfill or decline, at CLP-RI's discretion, requests for letters of invitation for visa application support purpose.

^{*} Remittance charge, Lifting charge, Correspondent charge and other charges should be paid by participants.





Accommodations

Regal Kowloon Hotel, Hong Kong: 71 Mody Road, Tsimshatsui, Hong Kong http://www.regalhotel.com/mobile/regal-kowloon-hotel/en/home/home.html

A block of rooms at special rates has been reserved for conference participants. [It ended on 20 Oct.]



Submission Items & Deadlines

For Participants including speakers

1 of 1 at tierpants meraaning speakers				
Items	Format No. Deadline		Submit To:	
		21 October 2016	Dr. Takao Watanabe	
Registration Form (Page 20)	1	4 November 2016	register(at)iere.jp	
			[Please substitute (at) with @]	
VISA Form		21 October 2016		
	5	(It takes 2 weeks	Ditto	
(If necessary, Page 21)		to issue)		
Designation Fee	_	21 October 2016	Diagramatanta Daga 15	
Registration Fee	_	4 November 2016	Please refer to Page 15	
Tashnical Visits Fac [antional]		21 October 2016	Ditto	
Technical Visits Fee [optional]		4 November 2016	Ditto	

For Speakers

1 of Speakers					
Items	Format No.	Deadline	Submit To:		
Abstract	2	2 September 2016			
Speaker's Information	3	21 October 2016 4 November 2016	Dr. Takao Watanabe		
Copyright Permission	4	21 October 2016 4 November 2016	register(at)iere.jp [Please substitute (at) with @.]		
Presentation Slides	_	21 October 2016			
(<u>PowerPoint file</u>)		4 November 2016			

The formats (Nos.1 to 5) <u>can be **DOWNLOADED**</u> from https://www.iere.jp/contents/Information/Preparation_Events/16WS.html



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 a LCD projector.

Each presentation is strictly limited to 20 minutes max, which includes approximately 5 minutes for Q&A.

Presentation slide numbers is limited to within 20 slides.

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

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

Poster Session:

There is no poster session in this Workshop

Language

The medium of communication is English.



from IERE



REGISTRATION FORM

Smart Cities - A Convergence of People, Technologies and Big Data

2016 IERE – CLP-RI Hong Kong Workshop 21 - 24 November 2016, Hong Kong SAR, China

Please type \boxtimes at appropriate boxes, then return this form by email **NO LATER THAN 4 November 2016** to:

IERE Central Office at Email: register(at)iere.jp [Please substitute (at) with @] / Fax: +81-3-3488-5100 \square Prof. \square Dr. \square Mr. \square Ms. \square Other, Please specify: 1. Name First Name Family Name 2. Position. Department 3. Company/ Organization etc. Zip Code Country 4. Address E-mail 5. Contact Phone Number Information Fax Number 6. I will contribute ☐ Yes □ No to a presentation Title: 7. Reception/Dinner Registration Fee covers the welcome reception and dinner (as well as lunch on 22 & attendance 23 Nov). For restaurant reservations, please let us know your attendance. not mandatory ☐ Welcome Reception on 21 Nov. ☐ Dinner on 22 Nov. 8. Accompanying If your family accompany you on reception/dinner, please write her or his name and title (Mr./Ms./ Person Registration Fee [Participants including speakers should pay registration fees.] ☐ US\$ 450 : IERE Member 9. Registration Fee \square US\$ 500 : Non-IERE Member [21 - 23 Nov.] ☐ US\$ 250 : Academic Participant Note: When participation is canceled irrespective of the reason after 4 November 2016, Registration Fee might be charged or not be reimbursed. Tour to The Peak after dinner hosted by CLP-RI (free of charge) 10. Social Event ☐ Yes: Number of participants ____ (including accompanying persons) (Optional) [23 Nov.] * The offer is on a first-come-first-served basis up to 65 persons. US\$ 40 per person : Hong Kong International Airport ☐ Yes: Number of participants ____ (including accompanying persons) 11. Technical Tour □ No (Optional) * Participants will be requested to submit ID card / passport number in advance. [24 Nov.] ** The maximum number of participants is up to 30. *** Admission will be allotted in order of application. Total: US\$ __ (Registration Fee & Technical Tour Fee) 12. Payment Amount ☐ Credit Card : URL for On-line Credit Card Payment : 13. Payment Method https://www.iere.jp/Payment/paypal_16WS.html [no later than ☐ Bank Transfer 4 Nov.] * IERE Central Office will send you the invoice. ☐ I need an invitation letter for Visa application. 14. Invitation letter □ No for VISA * Please refer to Page 9 of the 1st Announcement. 15. Information Do you agree with receiving e-mail notice on future activities/IERE E-mail Magazine

 \square Yes

□ No

from IERE Central Office?

Invitation	I ottor	for	VICA
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Format 5

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

* CLP-RI may be able to issue an	ter for Visa application. invitation letter for participants w submit the form as soon as possible		take 2 weeks to complete the	
Disclaimer: CLP-RI reserves the right to fulfill or decline, at CLP-RIs discretion, requests for letters of invitation for visa application support purposes.				
Name on passport	First Name:	Middle Name:	Family Name:	
Gender	☐ Male ☐ Female			
Nationality				
Date of birth				
Passport No.				
Occupation				
Company/ Organization etc.				
Expected date of entry				
Duration of stay				
Expected date of departure				
	☐ 21 November, Weld	come Reception		
Calla maiore Participation	□ 22 November, 2016 IERE-CLP-RI Hong Kong Workshop (Day 1)			
Colloquium Participation	□ 23 November, 2016 IERE-CLP-RI Hong Kong Workshop (Day 2)			
	□ 24 November, Technical Tour			

Organizers

IERE:

IERE Central Office 2-11-1 Iwado Kita, Komae-shi, Tokyo 201-8511, Japan https://www.iere.jp

CLP-RI:

CLP Research Institute Limited 8 Laguna Verde Avenue, Hung Hom, Kowloon, Hong Kong https://www.clpgroup.com/en

About CLP-RI

CLP-RI, CLP Research Institute Limited, was created in 2000 (CLP's Centenary year) to support CLP's tradition of technological innovation, environmental stewardship and customer service. CLP-RI's mission is to strengthen our innovation capabilities with the intent of increasing the economic, social, and environmental value of our products, services and businesses in the communities we serve.

In addition to building knowledge for CLP to manage these issues, CLP-RI contributes by proactively bringing emerging issues to the attention of management; expanding our global perspective on emerging technologies; growing the practice and means of knowledge sharing; demonstrating a culture of innovation and learning in critical areas by doing; and building and maintaining productive relationships with the academic and research communities.

IERE Members List (as of 27 September 2016)

Brazil CEPEL

Canada Hydro-Québec Powertech Labs Inc.

China **CEPRI** Guangdong Power **NARI**

Xi'an TPRI

France **EDF** Enedis **ENGIE**

Germany innogy SE Hong Kong CLP-RI

India **CPRI NTPC**

Indonesia PT.PLN Iran NRI Italy Enel

Japan Chubu EPCO Chugoku EPCO **CRIEPI**

> **FEPC** Fuji Electric Hitachi Hokkaido EPCO Hokuriku EPCO IHI

J-POWER Japan Atomic Power Kansai EPCO Kyushu EPCO **MHPS** Mitsubishi Electric

NGK Sumitomo Electric Shikoku EPCO

Tohoku EPCO Tokyo EPCO Toshiba **KERI KEPCO** KEPCO E&C

KESRI-SNU*

Malaysia **TNB**

Korea

Mexico **INEEL** Prolec GE Philippines Aboitiz Power Co. **MERALCO**

Singapore SP PowerGrid

South Africa Eskom **PIESA** Spain Gas Natural Fenosa **REE**

Taiwan Taiwan Power

Thailand **EGAT EURC***

U.S.A. **EPRI** Light the World

*: Academia

IERE Central Office

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Phone: +81-3-5438-1717 Fax: +81-3-3488-5100

https://www.iere.jp

1st issue : 16 November 2016

 2^{nd} issue : 17 November 2016; Title of S5-5 is changed

As Performed: 02 December 2016