

Final Program

Electric power storage, energy conversion and impact on the 21st century power grid

The 17th IERE General Meeting & Canada Forum



Vancouver, Canada

May 16 (Tuesday) – May 19 (Friday), 2017

Vancouver, Canada

Organized by
Powertech Labs Inc. and IERE

Message from IERE Chair

The global membership of the IERE is comprised of leading international electricity utilities and manufactures. Decisions are currently being made that will impact on climate change issues for the next fifty years. The members of the IERE consider climate change as a major strategic business challenge.

New technology strategies, roadmaps and enhanced research and development will have to be utilized in order for the clean use of coal, low carbon transport systems, renewable energy and energy efficient systems to be effective. Technology is the lifeblood of our members and, as such, I believe the role of the IERE in supporting technology growth, transfer and implementation is key in supporting our members in this global challenge.

The 17th IERE General Meeting and Canada Forum: “Electric power storage, energy conversion and impact on the 21st century power grid” will address the technologies and systems on energy storage as well as the broader evolving power system.

The 17th IERE General Meeting & Canada Forum is an excellent opportunity for us to share our experiences, dimension the challenges and discuss the possible solutions for this global challenge.

On behalf of IERE, I extend you a cordial invitation to participate in these events. Your personal participation is important, as both the face to face communication, as well as the collective discussions, undoubtedly will provide a fertile ground for new ideas, valuable for everyone in the search for solutions to our local problems.

I want to express my sincere gratitude to Powertech labs Inc., for their efforts to co-organize and support the 17th IERE General Meeting and Canada Forum: a great meeting place for an international exchange, from a unique blend of the future energy system.



Gregory Tosen

IERE Chair
PIESA, South Africa

Message from Powertech Labs Inc.

On behalf of Powertech labs Inc., host of the 17th IERE General meeting and Canada forum, it is our pleasure to welcome you to this international meeting which, in the tradition of previous IERE conferences, will address the major technology opportunities and challenges facing the evolving global power industry today.

The energy industry has always been in a constant state of advancement and change and these times are no different. Some of the more significant changes today include the shift in dependence from large base load nuclear and coal generation to that of intermittent renewable energy sources (e.g. wind and solar), the increasing need for grid-connected storage (e.g. battery, hydro), distribution grid modernization, the connected and intelligent home technology and the slow but steady shift in the automotive industry towards electric vehicles (EV). These shifts make for exciting times for all, and this conference focus is on understanding the state of the technology as well as what is required to ensure that the power industry evolves as one coordinated and interconnected system.

It is a fact that applied research, technological development and innovation are key elements for sustainable development in the energy industry. This is why this international event is designed to create the space in which we can share the different approaches and strategies that will lead us towards the goals of reliable and sustainable energy systems.

The 17th General Meeting and Canada Forum will address the role and challenges of energy storage and energy conversion as well as the broader impact on other industries such as automotive.

Powertech Labs Inc. established in 1979 and located in beautiful British Columbia, Canada has had a long and committed focus on R&D, consulting and testing for both the power and automotive industries. Like the power industry, the automotive industry is facing major changes with the move towards electric vehicles (EV) and Hydrogen Fuel Electric Vehicles (HFEV). This shift towards electric vehicles will mean that the power industry is quickly being linked to the fortunes of the automotive industry and vis-a-versa. As Powertech is a technology leader in both industries, we are well positioned to understand the market, technology and associated impacts.

It will be a great pleasure for us to welcome you in May, 2017. We have made every effort to put together a highly interesting, top-quality program, and to make sure your stay in Vancouver will be an unforgettable experience. We hope you can join us in May and, perhaps also spend some time enjoying tremendous beauty of the place we call home.

I look forward to meeting you,



Raymond Lings

President & CEO
Powertech labs Inc., Canada

Electric power storage, energy conversion and impact on the 21st century power grid

About the theme

Nowadays, the electric power system development in distributed generation and managing energy consumption are fundamentally changing the old paradigms in the energy business. Many new electric services, products or emerging technologies such as wide-scale distributed wind and solar generation, natural gas-fueled generators, energy storage, grid-connected batteries, electric & hydrogen vehicles, micro-grid, load shaping and demand response, and clean technology will play a more significant role in the evolving future energy system. These technologies have the potential to challenge the traditional business models of utilities and attract new players to enter the energy markets. On the other hand, energy sustainability and efficiency is also a major task that the whole world is facing. Finally, many of these technologies offer immediate hope to remote communities where the promise of grid supply was only a long-term objective.

The 17th IERE General Meeting & Canada Forum on “Electric power storage, energy conversion and impact on the 21st century power grid” will focus on the technologies and systems related to focus on energy storage as well as consider the impact of storage on the broader evolving power system.

IERE and Powertech hope to enhance the exchanges on these topics in the 2017 General Meeting & Canada Forum to realize fully the value of power resources and to supply all consumers with a quality, reliable and cost-effective power supply options.

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.

Outline Schedule: This schedule may be changed.

<i>Tuesday</i>	<i>–16 May 2017</i>	<i>Welcome Reception [in evening]</i>
<i>Wednesday</i>	<i>–17 May 2017</i>	<i>The 17th IERE General Meeting/Canada Forum</i>
<i>Thursday</i>	<i>–18 May 2017</i>	<i>The 17th IERE General Meeting/Canada Forum</i>
<i>Friday</i>	<i>–19 May 2017</i>	<i>Technical Tour (Optional)</i>

Session Themes:**Plenary Session**

Opening Address	: <i>IERE Chair</i>
Welcome Speech	: <i>Powertech Labs Inc.</i>
Keynote Speech	: <i>Mr. Greg Reimer (Executive Vice President, BC Hydro, Canada)</i>

IERE General Session [I]

The report of IERE technology foresight 2020

IERE General Session [II]

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

Technical Session**>Panel Discussion (Tentative)**

Theme: The role and challenges of the 21st century power system centered on distributed renewable generation, long geographic distances between generation and loads, matching generation and demand, energy storage and conversion and system reliability and grid of the future

- Reliability and growth of the 21st century power system
- A solution that promotes distributed generation, sustainability, diversity and flexibility, importance of energy storage as part of resource mix
- Latest critical technology developments pushing up against the conventional utility business
- The advances in electric and hydrogen vehicles and the impact these changes will have on the power industry as both a new (mobile) load and potential generator
- What are the steps that utilities are undertaking to capitalize on these developments, and what the utility of the future would look like

>Session 1

Theme: The value and benefits of energy storage

(Drivers behind storage at the grid level, need for storage at the distribution level, shaping the load curve, how to value storage as a source of generation and as a load and as an ancillary service, coupling storage with renewable generation and the impact of Electric Transportation (EV) as a storage device)

>Session 2

Theme: Advances in energy storage and conversion technologies

(Bulk grid-connected storage such as Hydro (e.g. pumped-storage, micro hydro system), Mechanical (e.g. compressed air) and Electrochemical (e.g. flow-battery) batteries, Fuel cells, Electric Vehicle (EV) Charging System, Conversion from electricity to gas such as hydrogen, distribution and microgrid energy storage options, Monitoring performance evaluation of batteries, Life prediction of batteries, etc.)

>Session 3

Theme: Advances in power transmission and distribution systems in support of energy storage and conversion

(Such as Demand Side Management (DSM), Load shaping, microgrids, power markets and tariffs and its regulatory policies, Home Energy Management System, Advanced Transportation (electric and hydrogen), etc. This session will consider the dramatic impact these technologies will have on non-connected, rural communities, Grid operation and control using energy storage including virtual power plants, voltage control, etc.)

>Session 4

Theme: Advances in technology in support of the 21st century power system

(Such as new materials for energy storage devices, advanced in power inverters, placing storage closer to loads, undergrounding substations, alternatives to SF₆, increasing system reliability through intelligent field devices, equipment health monitoring and diagnosis, DC transmission and distribution, bi-directional power-flows, etc.)

>Poster Session

The Poster of each session [1-4] will be presented in the same hall

In addition, the Poster Session is also organized under the framework of IERE's "**Young Academy activity**". Although presentations by any participants (at any age) are expected, IERE and Powertech Labs Inc. especially encourage university students, academic researchers etc. to participate in Poster Session under the theme of this conference.

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

Program:

Session structure, speakers, time frame may be changed according to the submission of contributions.

Welcome Reception

Tuesday, 16 May 2017

Vancouver Marriott Pinnacle Downtown Hotel, 3F 'Point Grey room', Vancouver

18:30 -	Registration
18:30 - 20:30	IERE Welcome Reception

The 17th IERE General Meeting/Canada Forum

- Day 1 -

Wednesday, 17 May 2017

Vancouver Marriott Pinnacle Downtown Hotel, 3F 'Ballroom -Pinnacle-', Vancouver

08:30 - 09:00	Registration
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Conference overall chair : Mr. Raymond Lings,

President & CEO of Powertech labs Inc., Canada

Opening Session

09:00 - 09:05	O-1	'Opening Address' <i>Mr. Gregory Tosen (Chair of IERE, South Africa)</i>
09:05 - 09:10	O-2	'Welcome Address' <i>Mr. Raymond Lings (CEO of Powertech labs Inc.)</i>

Keynote Addresses

09:10 - 09:25	K-1	Overview of BC Hydro <i>Mr. Greg Reimer (Executive Vice President, BC Hydro, Canada)</i>
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IERE General session [I]

09:25 - 09:55	G1-1	'Report of IERE Technology foresight 2020' <i>Dr. John Wing Mao Cheng (Senior Manager, CLPRI, Hong Kong)</i>
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Panel discussion

Theme: The role and challenges of the 21st century power system centered on distributed renewable generation, long geographic distances between generation and loads, matching generation and demand, energy storage and conversion and system reliability and grid of the future

Moderator: Mr. Raymond Lings, President & CEO of Powertech labs Inc., Canada

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|---------------|------|---|
| 9:55 - 10:05 | P1-1 | <i>Mr. Mark Lauby (Senior Vice President and Chief Reliability Officer, NERC, USA)</i> |
| 10:05 - 10:15 | P1-2 | <i>Dr. Sunil Chhaya (Technical Executive, EPRI, USA)</i> |
| 10:15 - 10:35 | | <u>Coffee Break</u> |
| 10:35 - 10:45 | P1-3 | <i>Mr. Vicente J. Gonzalez-Lopez (Head of Department, R&D and EU Projects Department, REE, Spain)</i> |
| 10:45 - 10:55 | P1-4 | <i>Dr. Luan Wenpeng (Professor/Chief expert, Distribution Automation Department, CEPRI)</i> |
| 10:55 - 11:05 | P1-5 | <i>Prof. Toshiya Nanahara (Professor, Department of Electrical and Electronic Engineering, School of Engineering, Tokyo Institute of Technology, Japan)</i> |
| | P1-6 | <i>(Missing Number)</i> |
| 11:05 – 11:15 | P1-7 | <i>Mr. Brian Moghadam (Business Development, Powerex Corp., Canada)</i> |
| 11:15 – 11:25 | P1-8 | <i>Mr. Greg Stanway (BC Hydro, Canada) & Dr. Vidya Vankayala (Powertech Labs Inc., Canada)</i> |
| 11:25 - 12:00 | | Panel discussion and Q&A |
| 12:00 - 13:00 | | <u>Lunch Break</u> |

Session 1 : The value and benefits of energy storage

Chair person: Dr. Yao Liangzhong, Vice president, CEPRI, China

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|---------------|------|--|
| 13:00 - 13:25 | S1-1 | <p>‘Energy Storage Technologies & Applications in Power Systems - Challenges and Experiences’
<i>Dr. Yao Liangzhong</i>
<i>(Vice president, CEPRI, China)</i></p> |
| 13:25 - 13:50 | S1-2 | <p>‘Battery Storage Advantages for Fast Charging Stations’
<i>Dr. Matthieu Loos</i>
<i>(Engineer, Power Systems, Powertech Labs Inc., Canada)</i></p> |
| | S1-3 | <p><i>(Missing number)</i></p> |
| 13:50 - 14:15 | S1-4 | <p>‘Stability FACTS + ESS for fast energy response in case of contingency’
<i>Mr. Vicente González</i>
<i>(Head of Department, R&D and EU Projects Department, REE, Spain)</i></p> |
| 14:15 - 14:40 | S1-5 | <p>‘Application of Cost-Effective Grid-Scale Battery Storage as an Enabler of Network Integration of Renewable Energy’
<i>Prof. Innocent Davidson.</i>
<i>(Professor, Department of Electrical Power Engineering, Durban University, South Africa)</i></p> |
| 14:40 - 15:05 | S1-6 | <p>‘Study of Using Energy Storage to Mitigate the Impact of High Renewable Energy Penetration to the Grid’
<i>Mr. Che-I Lin</i>
<i>(Electrical Engineer, Taiwan Power Research Institute, Taiwan)</i></p> |
| 15:05 - 15:25 | | <p><u>Coffee Break</u></p> |

Session 2 : Advances in energy storage and conversion technologies

Chair person: Dr. Lei Wang, Director of Power Systems, Powertech Labs Inc., Canada.

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|---------------|------|--|
| 15:25 - 15:50 | S2-1 | <p>“‘The innogy Green Fuel Project” - linking the electricity and mobility sectors by power to methanol technology’
<i>Mr. Thorsten Miltkau</i>
<i>(Senior Manager Technologies, Corporate Technology, innogy SE, Germany)</i></p> |
|---------------|------|--|

- 15:50 - 16:15 S2-2 'A Flow Battery for Long Duration Applications'
Mr. John McLeod
(*Vice President Engineering, ZincNyx Energy Solutions Inc., Canada*)
- S2-3 (*Missing number*)
- 16:15 - 16:40 S2-4 'R&D strategy and its related activities on advanced Li-ion batteries for electrical energy storage system'
Dr. Sang-Min Lee
(*Principal Researcher, Battery Research Center, KERI, Korea*)
- 16:40 - 17:05 S2-5 'Recent status of the battery energy storage technologies in Japan and issues related with performance evaluation'
Mr. Yuichi Mita
(*Senior research Scientist, CRIEPI, Japan*)
- 17:05 - 17:30 S2-6 'Research and Application of Fiber Bragg Grating Temperature Sensor for Energy Storage Battery In-situ Detection'
Mr. Xu Chong
(*Engineer, Energy Storage and Electrotechnics Department, CEPRI, China*)
- 18:30 - 21:30 Dinner

*All participants of the General Meeting/Canada Forum are invited to the "Dinner at Dockside restaurant" by taking the shuttle bus from Conference venue to Dinner venue. The detail will be also announced on the day.

The 17th IERE General Meeting/Canada Forum

- Day 2 -

Thursday, 18 May 2017

Vancouver Marriott Pinnacle Downtown Hotel, 3F 'Ballroom -Pinnacle-', Vancouver

IERE General session [II]

- 08:30 - 08:40 G2-1 'Report of IERE activities by IERE chair'
Mr. Gregory Tosen (Chair of IERE, South Africa)
- 08:40 - 08:50 G2-2 'Report of IERE board meeting and progress'
Dr. Takao Watanabe (Secretary General, IERE central office)

Session 3 : Advances in power transmission and distribution systems in support of energy storage and conversion

Chair person: Dr. John Wing Mao Cheng, Senior Manager, CLPRI, Hong Kong

- 08:50 - 09:15 S3-1 'Microgrids Technology Implementation and Standardization'
Dr. Luan Wenpeng
(Professor/Chief expert, Distribution Automation Department, CEPRI)
- 09:15 - 09:40 S3-2 'Evaluation of Li-ion Battery System and Demonstration Project of Virtual Power Plant'
Mr. Ken Asajima
(Senior Research Engineer, Advanced Technology Laboratory - R&D Center, Kansai EPCO, Japan)
- 09:40 - 10:05 S3-3 'Utility Scale Energy Storage Application and Development in Korea'
Mr. SungMin Cho
(Senior Researcher, Energy New Business Lab., KEPCO, Korea)
- 10:05 - 10:20 Coffee Break
- 10:20 - 10:45 S3-4 'Views on enhancing the consumption capacity of renewable energy resources'
Dr. Li Wei
(Director, Power system analysis and consulting division, NARI Group, China)
- 10:45 - 11:10 S3-5 'Simulation Method to Evaluate Mutual Impact between Smart Community and Distribution System'
Dr. Hiroyuki Hatta
(Research Scientist, Energy Innovation Center, CRIEPI, Japan)
- 11:10 - 11:35 S3-6 'Operation of ESS Interconnected to the Distribution Feeder by Distribution Management System'
Mr. Wonwook Jung
(Senior Researcher, KEPCO, Korea)
- 11:35 - 12:00 S3-7 'Research Frontiers and Development Dynamics of Demand Response under Deregulated Electric Power Retail Market'
Mr. Chen Songsong
(Engineer, Electric Usage and Energy Efficiency Research Department, CEPRI, China)

12:00 - 13:00

Lunch Break

Session 4 : Advances in technology in support of the 21st century power system

Chair person: Mr. Thorsten Miltkau, Senior Manager Technologies, innogy SE, Germany

13:00 - 13:25

S4-1

‘On-Line Transformer Oil Purification’

Dr. Mike Jain

(Product Manager, Substation Services, Powertech Labs Inc., Canada)

13:25 - 13:50

S4-2

‘A Realistic Method of Forecasting Dam Water Inflow for an Efficient Operation of Hydroelectric Power Stations including Pumped Storage ‘

Mr. Koichiro HATA

(Senior Researcher, Electric Power Research & Development Center, Chubu EPCO, Japan)

S4-3

(Missing number)

13:50 - 14:15

S4-4

‘Field operation of multiple BESSs for demand management of a large-scale electricity consumer’

Dr. Seul-Ki Kim

(Principal Researcher, Executive Director of Advanced Power Grid Research, KERI, Korea)

14:15 - 14:40

S4-5

‘Recent trends on interconnection of power storage facilities to real systems in Japan and the United States’

Dr. Joji kawano

(Deputy Senior Research Associate, Research Department, Japan Electric Power Information Center(JEPIC), Japan)

14:40 - 15:05

S4-6

‘Study on Calculation Method of Carbon Emission in Utilization of ACCC Conductor in New or Modified Power Lines’

Dr. Li Xin

(Senior Researcher, Technology Center, NARI Group, China)

15:05 - 15:30

S4-7

‘Renewable Energy Zones in Queensland: A means to Integrate Transmission and Generation Infrastructure Development’

Prof. Innocent Davidson

(Professor, Department of Electrical Power Engineering, Durban University, South Africa)

15:30 - 15:50

Coffee Break

Panel discussion by session chairs (Plenary Conclude session)

15:50 - 16:30 Panel discussion on the various approaches as shown in the sessions

Moderator: Mr. Gregory Tosen, Chair of IERE, South Africa

Panelist:

<i>Dr. Yao Liangzhong</i>	<i>(Chair of Session 1)</i>
<i>Dr. Lei Wang</i>	<i>(Chair of Session 2)</i>
<i>Dr. John Wing Mao Cheng</i>	<i>(Chair of Session 3)</i>
<i>Mr. Thorsten Miltkau</i>	<i>(Chair of Session 4)</i>

Closing remarks

16:30 - 16:40 From Powertech Labs Inc.

16:40 - 16:50 From IERE central office

Social Event (optional)

18:00 - 21:00 Social event [Dinner at ‘Steamworks Restaurant’ in Vancouver]

The 17th IERE General Meeting/Canada Forum
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- Day 3 -

Friday, 19 May 2017

Optional technical tour : Site visit of Powertech Labs Inc.

Technical tour (optional) : Site visit of Powertech Labs Inc.

08:30 Departure at Vancouver Marriott Pinnacle Downtown Hotel
(Shuttle bus)

09:45 - 11:45 Site visit of Powertech Labs Inc.

11:45 - 12:45 Lunch
(Shuttle bus)

14:00 Arrival at Vancouver Marriott Pinnacle Downtown Hotel

Conference Venue

Venue

Welcome Reception:

Vancouver Marriott Pinnacle Downtown Hotel, 3F 'Point Grey room'

General Meeting & Canada Forum:

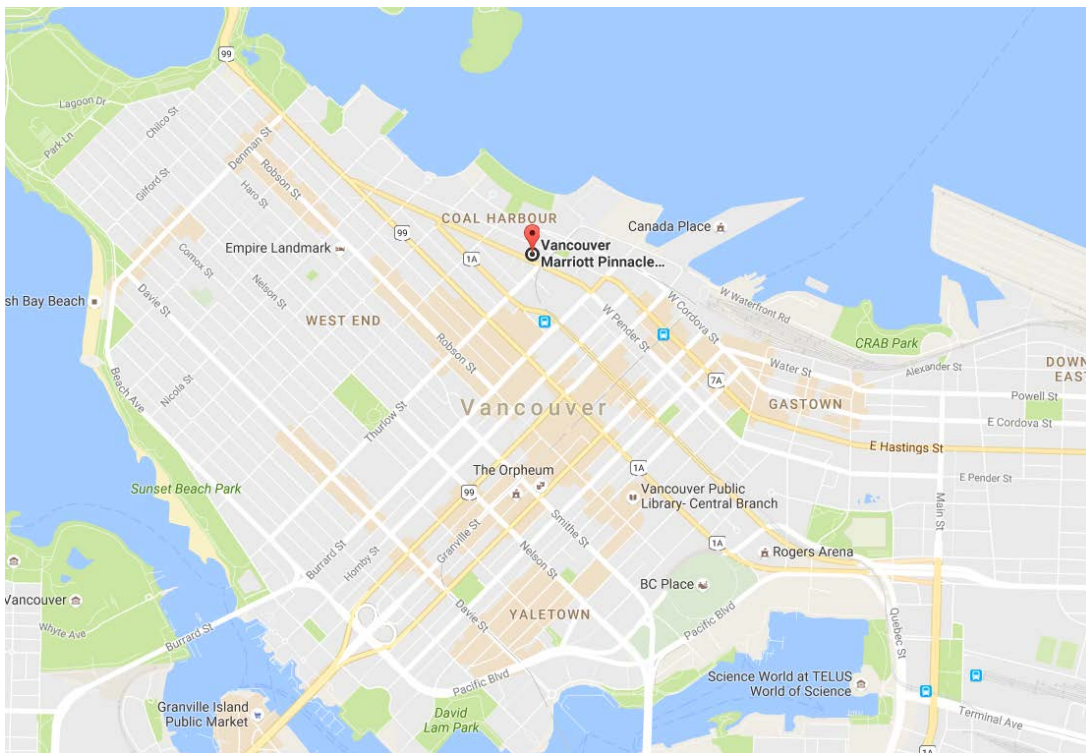
Vancouver Marriott Pinnacle Downtown Hotel, 3F 'Ballroom -Pinnacle- '

Technical Tour:

Site visit of Powertech Labs Inc. etc. (TBD)

<Vancouver Marriott Pinnacle Downtown Hotel>

<http://www.marriott.com/hotels/travel/yvrdt-vancouver-marriott-pinnacle-downtown-hotel/>



Map URL : <https://goo.gl/maps/XQdeWph9EEQ2>

Call for Papers

<<Abstract Submission: *No later than **15th March 2017***>>

You are kindly invited to submit abstract for Oral Session or Poster Session of General Meeting and Canada Forum by e-mail by 15th March 2017

- S-1: **The value and benefits of energy storage**
- S-2: **Advances in energy storage and conversion technologies**
- S-3: **Advances in power transmission and distribution systems in support of energy storage and conversion**
- S-4: **Advances in technology in support of the 21st century power system**

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 **Abstract format**, please refer to the “Events” page on IERE website.

URL: <https://www.iere.jp/events/forum/2017-canada/forspeakers.html>

Speakers are requested to submit their Presentation (PowerPoint) file, Speaker’s Information and Copyright Permission **by 16 April 2017**.

*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.

The official language is English.

Submission Items & Deadlines

For Participants [including speakers]

Items	Format No.	Deadline	Submit To:
Registration Form (Page 18)	1	16 April 2017	Dr. Takao Watanabe register(at)iere.jp [Please substitute (at) with @]
VISA Form (If necessary, Page 19)	5	16 April 2017 (As early as possible)	Ditto
Registration Fee	—	16 April 2017	Please refer to Page 15
Technical Visits Fee [optional]	—	16 April 2017	Ditto

For Speakers

Items	Format No.	Deadline	Submit To:
Abstract	2	15 March 2017	Dr. Takao Watanabe register(at)iere.jp [Please substitute (at) with @.]
Speaker's Information	3	16 April 2017	
Copyright Permission	4	16 April 2017	
Presentation Slides (PowerPoint file)	—	16 April 2017	

The formats (Nos.1 to 5) can be downloaded from

URL: <https://www.iere.jp/events/forum/2017-canada/forspeakers.html>

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 19) to IERE Central Office by e-mail.

Deadline: 16 April 2017

Registration Fee

Please make payment of following fee **No later than 16 April 2017** by credit card payment or bank transfer.

The Registration fee will cover attendance at both conference days (include lunches & refreshments at coffee breaks), welcome reception on 16 May, dinner on 17 May and conference package:

IERE members : US\$ 450 (*¹)

US\$ 600 (*²)

Non-members : US\$ 550 (*¹)

US\$ 700 (*²)

Academic : US\$ 225 (*¹)

US\$ 375 (*²)

*¹ In case you book the rooms of the *Vancouver Marriott Pinnacle Downtown Hotel* at the special website (<https://aws.passkey.com/e/48970606>). Please refer to 'Accommodation' on page 17. Please send the certification of the reservation of the hotel with the registration form(or later) to IERE central office.

*² In case you won't book the rooms of *Marriott Pinnacle Downtown Hotel* at the special website.

Social Event (optional) : US\$ 70 [Dinner on 18th May]

Technical Tour (optional) : US\$ 20 [Site visit of Powertech labs Inc. etc.]

* The maximum number of participants will be up to 30.

Payment

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

Deadline: 16 April 2017

(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_17GM.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
Account Number:	0068198
Bank address:	15-1 Seijo 6-chome, Setagaya-ku, Tokyo, 157-0066 JAPAN
SWIFT code:	<input type="text" value="B"/> <input type="text" value="O"/> <input type="text" value="T"/> <input type="text" value="K"/> <input type="text" value=""/> <input type="text" value="J"/> <input type="text" value="P"/> <input type="text" value=""/> <input type="text" value="J"/> <input type="text" value="T"/>

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

VISA (Please do not forget!)

For participants from some countries needing a VISA to enter Canada, 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 19.

*Powertech Labs may be able to issue an invitation letter for participants who need to apply for Visa. It may take 1 month to complete the procedures in Canada, so please submit the form to IERE central office as soon as possible.

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

Accommodations [A block of rooms at special rates]

- Vancouver Marriott Pinnacle Downtown Hotel

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

How to book at special rates?

1) Visit the following website

<https://aws.passkey.com/e/48970606>

2) At the part of the site, please click the ‘*Make a reservation*’ and proceed in accordance with your stay (Check in /Check out).

*The conference registration fee with **150 USD less** for the participants who book the rooms of the *Vancouver Marriott Pinnacle Downtown Hotel* [266CAD +17.5% tax / night] at the special website (<https://aws.passkey.com/e/48970606>) as described on page 15.

Please send the certification of the reservation of the hotel with the registration form [or later] to IERE central office.

*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 14 April 2017** (Vancouver time).





Registration Form

Format 1

2017 The 17th IERE General meeting and Canada forum
16- 19 May 2017, Vancouver, Canada

Please type at appropriate boxes, then return this form by email **NO LATER THAN 16 April 2017** 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	
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: <small>*There is a possibility we ask you to change from Oral Session to Poster Session by the number of presentation.</small>	
7. Reception/Dinner attendance not mandatory	Registration Fee covers the welcome reception on 16 th May and dinner on 17 th May (as well as lunch on 17-18). For reservations, please let us know your attendance. <input type="checkbox"/> Welcome Reception on 16 May. <input type="checkbox"/> Dinner on 17 May. <input type="checkbox"/> None	
8. Accompanying Person	If your family accompany you on reception/dinner, please write her or his name and title (Mr./Ms./) _____	
9. Registration Fee [16 -18 May.]	Registration Fee [Participants including speakers should pay registration fees.] <input type="checkbox"/> US\$ 450 : IERE Member (*1) <input type="checkbox"/> US\$ 600 : IERE Member (*2) <input type="checkbox"/> US\$ 550 : Non-IERE Member (*1) <input type="checkbox"/> US\$ 700 : Non-IERE Member (*2) <input type="checkbox"/> US\$ 225 : Academia (*1) <input type="checkbox"/> US\$ 375 : Academia (*2) <small>*1 In case you book the rooms of the Vancouver Marriott Pinnacle Downtown Hotel at the special website (https://aws.passkey.com/e/48970606). Please send the certification of the reservation of the hotel with the registration form(or later). *2 In case you won't book the rooms of the Vancouver Marriott Pinnacle Downtown Hotel</small>	
10. Social Event (Optional) [Dinner on 18 May]	US\$ 70 per person : Dinner on 18 May <input type="checkbox"/> Yes <input type="checkbox"/> No	
11. Technical Tour (Optional) [19 May.]	US\$ 20 per person : Site visit of Powertech Labs Inc. etc. (TBD) <input type="checkbox"/> Yes : Number of participants _____ (including accompanying persons) <input type="checkbox"/> No <small>* The maximum number of participants will be up to 30.</small>	
12. Payment Amount	Total : US\$ _____ (Registration Fee, Social Event Fee & Technical Tour Fee)	
13. Payment Method [no later than 16 April.]	<input type="checkbox"/> Credit Card : URL for On-line Credit Card Payment : https://www.iere.jp/Payment/paypal_17GM.html <input type="checkbox"/> Bank Transfer <small>* IERE Central Office will send you the invoice.</small>	
14. Invitation letter for VISA	<input type="checkbox"/> I need an invitation letter for Visa application. <input type="checkbox"/> No <small>* Please refer to Page 19 of the 2nd Announcement.</small>	
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"/> Yes <input type="checkbox"/> No	

When participation is canceled irrespective of the reason after 16 April 2017, Registration Fee might be charged or not be reimbursed.

Invitation letter for VISA

If participants need an 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 @].

<input type="checkbox"/> I need an invitation letter for Visa application. * Powertech Labs may be able to issue an invitation letter for participants who need to apply for Visa. It may take 1 month to complete the procedures in Powertech Labs, so please submit the form as soon as possible. Disclaimer: Powertech Labs reserves the right to fulfill or decline, at Powertech'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		
Nationality			
Date of birth			
Passport No.			
Occupation			
Company/ Organization etc.			
Expected date of entry			
Duration of stay			
Expected date of departure			
Colloquium Participation	<input type="checkbox"/> 16 May, 2017: Welcome Reception		
	<input type="checkbox"/> 17 May, 2017: The 17 th IERE General meeting and Canada forum (Day 1)		
	<input type="checkbox"/> 18 May, 2017: The 17 th IERE General meeting and Canada forum (Day 2)		
	<input type="checkbox"/> 19 May, 2017: Technical Tour		

IERE Members List (as of 1 April 2017)

Brazil	CEPEL		
Canada	Powertech Labs Inc.		
China	CEPRI	GPG	NARI
France	Enedis	ENGIE	
Germany	innogy SE	RWETI	
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
	KESRI*		
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	Light the World Inc.	

*: Academia

Organizers

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<http://www.powertechlabs.com>

IERE:

IERE Central Office

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<https://www.iere.jp>

About Powertech labs Inc.

Powertech Labs Inc. is one of the largest testing and research laboratories in North America, situated in beautiful British Columbia, Canada. Our 11-acre facility offers 15 different testing labs for a one-stop-shop approach to managing utility generation, transmission and distribution power systems.

Powertech is home to a broad range of scientists, engineers, and technical specialists, with capabilities in electrical testing, cable condition assessment, mechanical and materials engineering, software development, power system studies, chemical analysis, gas systems engineering, and smart utility services. These skilled researchers have decades of collective and real-world experience and often work in cross-departmental teams to investigate, diagnose and solve complex problems.

As an independent, third-party testing facility, we adhere to the highest laboratory (ISO 17025), quality (ISO 9001) and environmental (ISO 14001) management standards. Many of our scientists and engineers chair or participate in various standards committees within their fields of expertise. Additionally we have the capabilities to derive and develop non-standard testing methods and setups required to test product prototypes and perform forensic analysis.

Outside of the utilities industry, Powertech provides routine testing capabilities, product development, research and consulting services to support an array of industrial-type operations, electrical equipment manufacturers and automotive original equipment manufacturers.





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