

## **First Announcement**

### **2017 IERE-TNB Putrajaya Workshop**

**Technologies reshaping the electricity supply industry**



Masjid Putra, Putrajaya

**November 20 (Monday) – November 23(Thursday) 2017  
Putrajaya, Malaysia**

**Organized by  
TNB Research and IERE**

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# Technologies reshaping the electricity supply industry

## *About the theme*

The electricity supply industry has been facing many challenges worldwide. The issues includes challenges to produce, transmit, and use energy in an environmentally acceptable and sustainable manner. At the same time, the electricity supply industry needs to reduce its costs by improving operating efficiency and business practices with digital world becoming the forefront tools in reshaping the operating model in the future. In addition, the industry also needs to ensure customer satisfaction beyond the traditional supply reliability and power quality. Hence, research and development on new and enabling technologies plays a major role in shaping the future directions of electricity supply industry.

## *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. IERE will invite prominent speakers for keynote speeches.

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**Outline Schedule:** This schedule may be changed.

Monday	– November 20, 2017	Welcome Reception
Tuesday	– November 21, 2017	2017 IERE-TNB Putrajaya Workshop
Wednesday	– November 22, 2017	2017 IERE-TNB Putrajaya Workshop
Thursday	– November 23, 2017	Technical Tour (Optional)

**General Theme: Technologies reshaping the electricity supply industry**

The world of commodities of oil, gas and metal soaring have showed a very substantial disruption over the past 15 years. With the technological innovation such as the adoption of robotics, artificial intelligence, Internet of things (IoT) and data analysis rising rapidly that eventually transform the resources utilization.

Recently, as more energy efficiency technologies takes place on the demand side, the consumption of energy becoming less intense. In addition, technological advances are helping to bring down the cost of renewable energies, such as solar and wind energy, contributing to its greater role in global energy mix. On the supply side, the advancement of technology also raising the ability of these companies to deploy wider range of technologies in future.

The volatility of energy resources is expected to takes place in coming years, with the prices may diverge widely. This trend will strongly depends on the adoption of technology innovation, energy producers and policy makers, as such will reshape the electricity supply industry for the future.

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## Session Themes:

### >Session 1: The road to low carbon economy

In achieving Paris Agreement, it has been stated that the inclination trends of carbon emission and carbon intensity need to be curbs and balance with the development, implementation of renewable energy as well as carbon capture, storage and utilization (CCUS) technology. As such will leads the road to low carbon economy. This session enables the speakers to share the research findings on low carbon economy and related matters. Potential topics includes:

- Renewable Energy
- Carbon Capture, Storage & Utilization
- Energy Efficiency & Energy Infrastructure
- Institutional frameworks / roadmap

### >Session 2: Customer experience at the heart of next generation operating model

New technology and digital age is reshaping client involvement in practically every part. As the technology enter the markets, it comes with drastically new offers and disturbing the conventional ways that organizations deal with customer. The next generation operating model for customer experience will required setting a high bar for simplicity, personalization, and interactivity. This session enables the speakers to share the experienced and research findings on next generation operating model with customer experience will the pinnacles factor. Potential topics include:

- Mobile apps & Smart home
- Smart Meter & Smart Grid
- Strategy for customers satisfaction.
- Modifications of fundamental practices.
- Alteration the way employees work.

### >Session 3: Next generation operating model for the digital world

The next generation operating model for the digital world required a companies to be more agile, quicker to react and more effective to deliver great customer experiences, take advantage of new technologies to cut cost, improve quality and transparency, and build value. Such a way in achieving it by providing compelling customer experiences at lower cost. This session enables the speakers to share the experienced and research findings on the next generation operating model for the digital world and related matters. Potential topics include:

- Lean process design
- Digitization
- Intelligent process automation
- Advance analytics
- Business process outsourcing

## >Session 4: Enabling technologies & others

In supporting the renewable energy technologies, certain form of enabling technologies is required and shared similar weightage for the advancement and deployment of renewable energy technologies. The enabling technology will facilitating the successful integration of renewable electricity generation. The potential topics include:

- Energy storage
- Energy management system technologies
- Advance distribution network management
- Advance system control
- End-use technologies and electric vehicles

## Poster Session

Details to be announced

## Technical Visits (optional)

Visiting TNBR research facilities (tentative)

## Tentative Program (subject to change)

### November 20 (Mon)

18:00 - 20:00 Registration and Welcome Reception / Cocktail

### November 21 (Tue)

#### **Workshop (Day 1)**

08:30 - 09:00 Registration  
09:00 - 12:00 Opening and Forenoon Sessions  
12:00 - 13:00 Lunch  
13:00 - 17:30 Afternoon Sessions  
  
18:30 - 21:00 Dinner

### November 22 (Wed)

#### **Workshop (Day 2)**

09:00 - 12:00 Forenoon Sessions  
12:00 - 13:00 Lunch  
13:00 - 17:00 Afternoon Sessions and Plenary Conclusion Session

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

19:00 - 20:00 Move to Dataran Putra; the biggest square near Putra Mosque and Prime Minister's Office, by bus  
20:00 - 21:00 Putrajaya lake cruise with dinner

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Around 21:30 Return to Putrajaya Shangri-La Hotel

- Time schedule may be changed.
- The maximum number of participants is up to 30.
- Admission will be allotted in order of application.
- Only Halal foods are served and no alcoholic drinks.
- Shuttle bus service is available between Shangri-La hotel and the dinner cruise boarding point.

November 23 (Thu)

**Technical Tour (optional)**

Visiting TNBR research facilities (tentative)

Around 8:30 Departure at Putrajaya Shangri-La Hotel

Around 14:00 Return to Shangri-La Hotel and take lunch

- Time schedule may be changed.
- The maximum number of participants is up to 40.
- Admission will be allotted in order of application.

## Call for Papers

**<<Abstract Submission: No later than August 31, 2017>>**

You are kindly invited to submit abstracts for the Oral Session or Poster Session for the 2017 Putrajaya Workshop by e-mail by August 31, 2017

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

<https://www.iere.jp/events/workshop/2017-malaysia/forspeakers.html>

- Speakers are requested to submit their **presentation (PowerPoint) file** by **October 23, 2017**.
- Abstract and presentation file are uploaded IERE’s website and open to the public after the workshop.
- The medium of communication is English.

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## Registration

(a) On-line Registration

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

or

(b) Please submit a registration form (Format 1, Page 11) to IERE Central Office by e-mail.

**Deadline: October 23, 2017**

## Registration Fee

Please make payment of following fee **No later than October 23, 2017** 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 November 20, dinner on November 21 and conference package:

<b>IERE members</b>	<b>:</b>	<b>US\$ 350.-</b>
<b>Non-members</b>	<b>:</b>	<b>US\$ 400.-</b>
<b>Academic participants</b>	<b>:</b>	<b>US\$ 200.-</b>

*Recommended options\**

**Social Event (optional) : US\$ 60.**

Putrajaya lake cruise with dinner on November 22

**Technical Tour (optional): US\$ 50.-**

Visiting TNBR research facilities (tentative) on November 23

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



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## Payment

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

**Deadline: October 23, 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\\_17WS.html](https://www.iere.jp/Payment/paypal_17WS.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:	0068198
Bank address:	15-1 Seijo 6-chome, Setagaya-ku, Tokyo, 157-0066 JAPAN
SWIFT code:	B O T K J P J 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 Malaysia, 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 12.

\*TNB Research may be able to issue an invitation letter for participants who need to apply for Visa. It may take a few weeks to complete the procedures in TNB Research, so please submit the form as soon as possible.

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

## Conference Venue & Accommodations

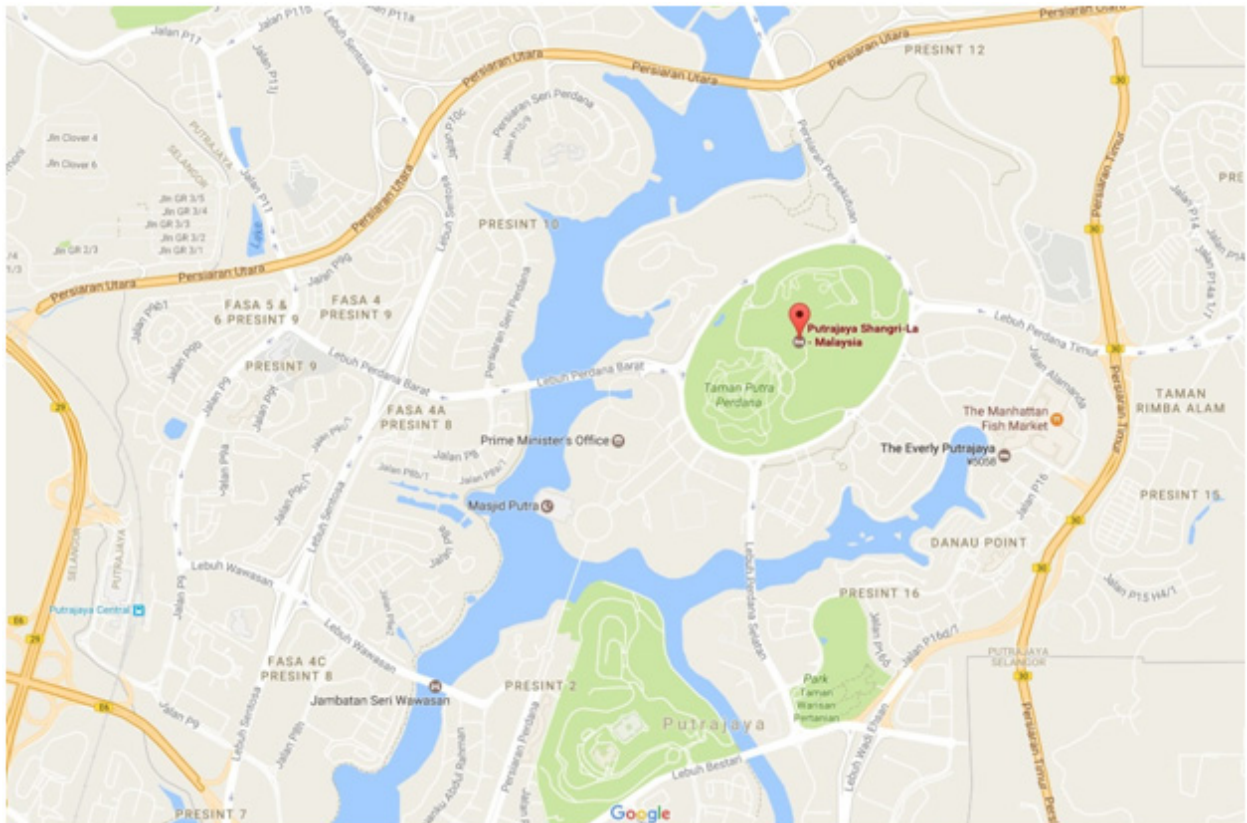
### >Conference Venue

Putrajaya Shangri-La, Putrajaya

Location: Taman Putra Perdana Presint 1, Wilayah Persekutuan, Putrajaya, 62000, Malaysia

Website: <http://www.shangri-la.com/kualalumpur/putrajayashangrila/>





Map URL: <https://goo.gl/maps/fcy1WeHTeM42>

## >Accommodations

Putrajaya Shangri-La, Putrajaya

Location: Taman Putra Perdana Presint 1, Wilayah Persekutuan, Putrajaya, 62000, Malaysia

Website: <http://www.shangri-la.com/kualalumpur/putrajayashangrila/>

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

[How to book **Putrajaya Shangri-La** at special rates?]

- Visit our website

<https://www.iere.jp/events/workshop/2017-malaysia/venue.html>

- At the part of the site “Venue”, please download the ‘*Hotel Reservation Form(pdf file)*’ and follow the instructions to fill out the form;

- Complete the form, sign it and send it by e-mail to the indicated mail-address of *Putrajaya Shangri-La Hotel*

\* Please make reservations as early as possible as the number of rooms blocked at the special rate is limited.

\*\* To book at ‘Special Rates’, reservation should be completed by November 1st, 2017.

\*\*\* Please be sure to read cancellation policy of the form before application.

## Submission Items & Deadlines

### For Participants [including speakers]

Items	Format No.	Deadline	Submit To:
Registration Form (Page 11)	<b>1</b>	<b>October 23, 2017</b>	Dr. Takao Watanabe <a href="mailto:register(at)iere.jp">register(at)iere.jp</a> [Please substitute (at) with @]
VISA Form (If necessary, Page 12)	<b>5</b>	<b>October 23, 2017</b> (It takes a few weeks to issue)	Ditto
Registration Fee	—	<b>October 23, 2017</b>	Please refer to Page 6
Social Event Fee [optional]	—	<b>October 23, 2017</b>	Ditto
Technical Visits Fee [optional]	—	<b>October 23, 2017</b>	Ditto

### For Speakers

Items	Format No.	Deadline	Submit To:
Abstract	<b>2</b>	<b>August 31, 2017</b>	Dr. Takao Watanabe <a href="mailto:register(at)iere.jp">register(at)iere.jp</a> [Please substitute (at) with @.]
Speaker's Information	<b>3</b>	<b>October 23, 2017</b>	
Copyright Permission	<b>4</b>	<b>October 23, 2017</b>	
Presentation Slides (PowerPoint file)	—	<b>October 23, 2017</b>	

Registration Form (No. 1) can be **DOWNLOADED** from  
<https://www.iere.jp/events/workshop/2017-malaysia/register.html>

The formats (No.2-5) can be **DOWNLOADED** from  
<https://www.iere.jp/events/workshop/2017-malaysia/forspeakers.html>



## REGISTRATION FORM

Format 1

### Technologies reshaping the electricity supply industry

2017 IERE-TNB Putrajaya Workshop  
November 20-23, 2017, Putrajaya, Malaysia

Please type ☒ at appropriate boxes, then return this form by email **NO LATER THAN October 23, 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/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. Reception/Dinner attendance <b>not mandatory</b>	Registration Fee covers the welcome reception and dinner (as well as lunch on Nov. 21 & 22). For restaurant reservations, please let us know your attendance. <input type="checkbox"/> Welcome Reception on Nov. 20 <input type="checkbox"/> Dinner on Nov. 21 <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 [Nov. 20-22]	Registration Fee [ Participants including speakers should pay registration fees. ] <input type="checkbox"/> US\$ 350 : IERE Member <input type="checkbox"/> US\$ 400 : Non-IERE Member <input type="checkbox"/> US\$ 200 : Academic Participant Note: When participation is canceled irrespective of the reason after October 23, 2017, Registration Fee might be charged or not be reimbursed.			
10. Social Event (Optional) [Nov. 22]	US\$ 60 per person : Putrajaya lake cruise with dinner <input type="checkbox"/> Yes : Number of participants _____ (including accompanying persons) <input type="checkbox"/> No * The offer is on a first-come-first-served basis up to 30 persons.			
11. Technical Tour (Optional) [Nov. 23]	US\$ 50 per person : Visiting TNBR research facilities (tentative) <input type="checkbox"/> Yes : Number of participants _____ (including accompanying persons) <input type="checkbox"/> No * The maximum number of participants is up to 40. ** Admission will be allotted in order of application.			
12. Payment Amount	Total : US\$ _____ (Registration Fee & Technical Tour Fee)			
13. Payment Method [no later than Oct. 23]	<input type="checkbox"/> Credit Card : URL for On-line Credit Card Payment : <a href="https://www.iere.jp/Payment/pavpal_17WS.html">https://www.iere.jp/Payment/pavpal_17WS.html</a> <input type="checkbox"/> Bank Transfer * IERE Central Office will send you the invoice.			
14. Invitation letter for VISA	<input type="checkbox"/> I need an invitation letter for Visa application. <input type="checkbox"/> No * Please refer our Announcement Document.			
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			

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 e-mail address of this format. If you DON'T want to open these information, please type '✓' at appropriate boxes shown below.

☐ Position, Department    ☐ e-mail address

# 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"/> <b>I need an invitation letter for Visa application.</b> * TNB Research may be able to issue an invitation letter for participants who need to apply for Visa. It may take a few weeks to complete the procedures in TNB Research, so please submit the form as soon as possible.  Disclaimer: TNB Research reserves the right to fulfill or decline, at TNB Research'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"/> November 20, Welcome Reception		
	<input type="checkbox"/> November 21, 2017 IERE-TNB Putrajaya Workshop (Day 1)		
	<input type="checkbox"/> November 22, 2017 IERE-TNB Putrajaya Workshop (Day 2)		
	<input type="checkbox"/> November 23, Technical Tour		

# **IERE Members List (as of August 8, 2017)**

Brazil	CEPEL		
Canada	Powertech Labs Inc.		
China	CEPRI	GPG	NARI
France	Enedis	ENGIE	
Germany	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
	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

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## About TNB Research

TNB Research, better known as TNBR, has been the in-house solution provider for Tenaga Nasional Berhad (TNB) since 1993. Situated in Bangi, Selangor, the R&D Centre provides a centralised, one-stop centre for technical solutions and innovation.

Streams of solution developed under various Applied Research projects have been introduced to our parent company. These solutions have contributed towards improving the overall operational performance of the company in areas such as power plant unplanned outage rate (UOR), transmission system minutes, distribution SAIDI and many others.

While continuing effort on operational improvement initiatives in TNB, TNBR is now embarking on various Advanced Research projects in positioning TNB to be an early adopters of promising technologies.



## About TNB

Tenaga Nasional Berhad (TNB) is the largest electricity utility in Malaysia and one of the largest in the region, with an asset base totaling RM110.7 billion. With a history spanning 65 years, TNB is also the most experienced energy player in the country, responsible in keeping the lights on for all residents of Peninsular Malaysia, Sabah and Labuan.

## About IERE

IERE is an organization for exchanging electricity and energy related cutting-edge technologies and R&D information among its members from the electricity & energy supply industry, equipment provider businesses, academic research, government, etc. This unique platform is of great help for executives, senior managers, engineers, and researchers who are responsible for R&D and solutions. It is a worldwide, non-profit organization, established as “International Electric Research Exchange” in 1968.

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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: August 8, 2017