

Second Announcement

2019 IERE-PLN Bali Workshop

“Smarter and Cleaner Electricity for Better Life”



Pura Ulun Danu Bratan, Bali, Indonesia

March 11 – 14, 2019
Bali, Indonesia

Organized by IERE and PLN

Smarter and Cleaner Electricity for Better Life

About the theme

The economy is largely built on a reliable supply of cheap electricity. Therefore electricity production is still mostly based on fossil fuels. A challenge is to keep the supply system stable and affordable with the rapid expansion of intermittent renewable energy sources. The power lines, transformers, and control stations that make up our current energy grid are old, increasingly unreliable, and not adequate to handle a significant increase in renewable energy. In addition the utilization electricity for non-power sector such as transportation is still growing significantly.

To move toward a cleaner energy economy, improvements of electrical grid is needed, as well as construct the smart system which can solve the issues arising from the intermittency of renewable electricity sources. Smart appliances respond intelligently to a signal from the grid operator. Variable pricing of electricity might also help, and for this smart meters with a momentary tariff indicator are needed. Modern contingency reserves have to consist of smaller agile power plants that are well distributed across the area to be served. Decentralized generation is beneficial in this respect, since it reduces the dependence on a few distant generators and long power lines.

Despite its smart and clean value to society, electricity has to be affordable. Indeed the use of electrical energy should be directly linked with economic value. To make the integration successful and to ensure prosperity in the future, new technical solutions and business conditions are needed.

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.

Outline Schedule:

Monday	– March 11, 2019	Welcome Reception
Tuesday	– March 12, 2019	2019 IERE-PLN Bali Workshop (Day 1) Official Dinner
Wednesday	– March 13, 2019	2019 IERE-PLN Bali Workshop (Day 2) Social Event (Optional)
Thursday	– March 14, 2019	Technical Visit (Optional)

General Theme: Smarter and Cleaner Electricity for Better Life

Session 1: Advanced Metering Infrastructure (AMI)

Utilities today are seeking ways to enhance energy efficiency, reduce costs and improve customer service. One strategy is to deploy an advanced metering infrastructure (AMI). However, installation and execution are still challenging. Implementing AMI is a complex undertaking involving multiple technologies. This session will discuss about all content of AMI and its implementation strategy. Potential topics include:

1. Smart meter
2. Communication protocol and technology
3. Meter data management system
4. Security issues and challenge
5. AMI implementation strategy etc.

Session 2: Renewable Energy Grid Integration

To foster sustainable, low-emission development, many countries are establishing ambitious renewable energy (RE) targets for their electricity supply. Because RE especially solar and wind tend to be more variable and uncertain than conventional sources, various technical and economic issues occur in the integration of these resources into a grid. Technical problems arise in the areas of power quality, voltage stability, harmonics, reliability, protection, and control. The session will investigate the possible solutions for those issues and other related challenges. Potential topics include:

1. System flexibility
2. Storage system and technology
3. Stochastic modelling
4. Demand side management
5. Hybrid system etc.

Session 3: Distributed Power Generation

Environmentally friendly renewable energy technologies such as photo-voltaic and clean, efficient, fossil-fuels technologies such as micro-turbines and fuel cells are among new generating systems driving the demand for distributed generation of electricity. The smallness of these new distributed generations along with the low voltages at the interface creates a new class of problems which requires innovative approaches to managing and operating the distributed resources. This section will explore about the role of distributed power generation for electrifying community and all related issues. Potential topics include:

1. Solar photovoltaic panels (solar farm, PV rooftop)
2. Small wind turbines
3. Micro gas fired (turbines/engines)
4. Fuel cells using by natural gas or biomass
5. Reciprocating combustion engines etc.

Session 4: Electric Vehicle (EV) Infrastructure

The development of electric vehicle has been over a hundred years but failure to gain the public acceptance in various stages due to various reasons. Therefore, widespread electric vehicle adoption requires a supportive ecosystem of stakeholders including utilities, government, vehicle OEMs, charging providers, interest group and drivers. With the correct policy and government help and advancement of electric vehicle technology, the prospect of Electric Vehicle will be bright and the focus point of future development. The session will elaborate those issues and the following potential topics:

1. Standard and type of charger
2. EV business model
3. E-mobility concept and model
4. EV infrastructure development strategy etc.

Session 5: Advanced Thermal Power Generation

Although the renewable energy has emerging globally yet the energy supply in the world is still mostly produced by thermal power generation. To move toward a cleaner energy economy, improvements of emission reduction technology are needed, as well as construct the smart system overcoming the intermittency of renewable electricity penetration. Additionally to achieve higher efficiency and reliability, modernization of thermal power plants has been conducted through utilization of advance management and digital technology.

Potential topics include:

1. Thermal power plant flexibility
2. Status of emission reduction technology (eg. Carbon capture storage, Clean coal technology etc.)
3. Asset management on power generation
4. Artificial intelligence and Data analytics of thermal power plants.
5. Other green thermal power plants recent issues (eg. Geothermal, Bio mass to energy etc.)



Poster Session

The Poster will be presented in the Pre-Function room next to the Grand Ball room.

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

Exhibition

The exhibition will be held next to the Grand Ballroom.

Program :

Session structure, speakers and timetable are subject to change.

Welcome Reception

Monday, March 11, 2019
Ayodya Resort Bali, Beach Garden

17:30 –	Registration
18:00 – 20:00	Welcome Reception

2019 IERE-PLN Bali Workshop

- Workshop Day 1 -

Tuesday, March 12, 2019
Ayodya Resort Bali , Level 1, Grand Ballroom

08:00– 08:40	Registration
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Opening Ceremony

08:40 – 09:00	Welcome at Bali's traditional dance
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Opening Session

09:00 – 09:10	O-1	Opening Address <i>Gregory Tosen (IERE Chair)</i>
09:10 – 09:20	O-2	Welcome Address <i>Mrs. Syofvi Roekman</i> <i>(Director of Planning PLN, PT PLN (Persero), Indonesia)</i>

Keynote Addresses

09:20 – 09:50	K-1	'Global Trend and Korean Prospect of Smart Grid' <i>Dr. Sung Hwan Bae</i> <i>(Chief Researcher, KEPCO Research Institute, Korea)</i>
09:50 – 10:20	K-2	'Ocean Energy; status, prospect and development for future energy' <i>Prof. Mukhtasor</i> <i>(Coordinator of Post Graduate Program in Marine Resources Management, Sepuluh Nooember Institute of Technology, Indonesia)</i>
10:20 – 10:30		<u>Coffee Break</u>

Session 1 : Advanced Metering Infrastructure (AMI)

Chair person: TBD

- 10:30 – 10:55 S1-1 ‘Method and Strategy for AMI Development Based on AMR System Infrastructure to Support Electricity System Digitalization’
Mr. Ignatius Rendroyoko
(General Manager, PT. PLN (Persero) Region of East Nusa Tenggara, Indonesia)
- 10:55 – 11:20 S1-2 ‘Highly Reliable Automatic Metering Infrastructure with Narrow Band Power Line Communication’
Mr. Shinnosuke Nakano
(Engineer, Power Systems R&D Center, Sumitomo Electric Industries Ltd., Japan)
- 11:20 – 11:45 S1-3 ‘Linky, Enedis’ AMI program: a powerful tool for energy transition and network management’
Mr. Christophe Boisseau
(R&D Coordinator, Technical Division, Enedis, France)
- 11:45 – 12:10 S1-4 ‘Research on Low Voltage Power Line Broadband Communication in the AMI system’
Mr. Hailong Zhang
(Engineer, Metering Department, CEPRI, China)
- 12:10 – 13:10 Lunch break, Poster Session & Exhibition

Session 2 : Renewable Energy Grid Integration

Chair person: *Dr. Taku Noda (Power Quality Group, Energy Innovation Center, CRIEPI, Japan)*

- 13:10 – 13:35 S2-1 ‘Development of a power system analysis tools (CPAT) to support stable operation of large scale electric power system: Standard and reliable tool in Japan’
Dr. Masaki Nagata
(Deputy Director, System Engineering Research Laboratory, CRIEPI, Japan)

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- 13:35 – 14:00 S2-2 ‘The Development and Application of DC Technologies in Renewable Energy Integration’
Dr. Hongzhi Liu
(*Engineer, Renewable Energy Research Center, CEPRI, China*)
- 14:00 – 14:25 S2-3 ‘Demonstration of Peer to Peer (P2P) Transaction of Surplus Energy Using BLOCKCHAIN Technology’
Fumiaki Ishida
(*General Manager, R&D Centre, The Kansai Electric Power Co. Inc., Japan*)
- 14:25 – 14:50 S2-4 ‘Battery Energy Storage System for Grid peak shaving’
Wilhelm van Butselaar
(*Wärtsilä, the Netherlands*)
- 14:50 – 15:00 Coffee Break

Session 2 : Renewable Energy Grid Integration (continued)

Chair person: *Dr. Masaki Nagata (Deputy Director, System Engineering Research Laboratory, CRIEPI, Japan)*

- 15:00 – 15:25 S2-5 ‘Pumped Storage Hydro Plant: Battery of the Grid’
Mohamad Hakim Bin Zainuddin
(*Manager, Single Buyer Department, Tenaga Nasional Berhad, Malaysia*)
- 15:25 – 15:50 S2-6 ‘An Introduction to the Simulation Program XTAP for the Analysis of Electromagnetic Transients in Power Systems’
Dr. Taku Noda
(*Power Quality Group, Energy Innovation Center, CRIEPI, Japan*)
- 15:50 – 16:15 S2-7 ‘Management of REN on the Distribution Grid’
Mr. Ross Smith
(*Smart Grid Opportunity Leader EAJ., Schneider Electric, UK*)
- 16:15 – 16:40 S2-8 ‘Trends in hydrogen storage technology in Europe and Japan to achieve a low carbon society’
Dr. Joji Kawano
(*Senior Research Associate, Research Department, JEPIC, Japan*)
- 16:40 – 17:30 Coffee break, Poster Session & Exhibition

< Poster Session >

- P-1 Methods for The Integration of Variabel Renewable Energy into Unit Commitment Scheme in Microgrid System
Mr. Ignatius Rendroyoko
(General Manager, PT. PLN (Persero) Region of East Nusa Tenggara, Indonesia)
- P-2 Cost Effective Maintenance to Increase Performance and Reliability in Wayang Windu Geothermal Power Station
Amri Zein
(Coordinator Power Plant, Operation, Star Energy Geothermal (Wayang Windu) Ltd., Indonesia)
- P-3 Wayang Windu Unit 2 CDM Program
Hariyanto
(Production Superintendent, Operation, Star Energy Geothermal (Wayang Windu) Ltd., Indonesia)
- P-4 Beyond Compliance : IP Local Community Empowerment to Utilize Municipal Solid Waste (MSW) Enrichment as Alternative Clean Fuel for Power Generation
Sugeng Triyono
(Engineering Departement, PT Indonesia Power, Indonesia)
- P-5 Demand Side Management (DSM) for PV Rooftop Customer in PLN UID Banten
Ika Khoirun Nisa
(Assistant Analyst, Planning Departement, PT PLN (Persero) Distribution Unit of Banten, Indonesia)
- P-6 ‘Risk Based methods for 10 MW of PV Project development planning’
Sinung Dwi Anggraeni
(Risk Management Staff, Risk Management Division, PT Indonesia Power, Indonesia)
- P-7 Universal Device for Live Maintenance - U_DEVICE
Lilik Dian Rofik
(PT PLN (Persero) Distribution Unit of East Java, Indonesia)
- P-8 Steam-Water Warning System (SWS)
Iqbal Felani
(PT PLN (Persero) Research Institute, Indonesia)

- P-9 Distribution Management System 20 kV based on SMART DAS
I Nyoman Aryawan
(PT PLN (Persero) Distribution Unit of Bali, Indonesia)
- P-10 PUSAKO (PUPUK ABU SILIKA KOTA SAWAHLUNTO)
Ari Rudianto
(PT PLN (Persero) Power Generation Unit of South Sumatera, Indonesia)
- P-11 AVATOR (Automatic Vibration Monitor Calibrator) Special Tool Portable
Alfian Budiarmoko
(PT Pembangkitan Jawa-Bali, Indonesia)
- P-12 Fleksible Rotary Sleeve (FLAS)
Angga Putra Kriswardana
(PT PLN (Persero) Distribution Unit of East Java, Indonesia)
- P-13 “EMO” Expert System for Efficiency Diagnostic in Power Plant using Fuzzy Logic
Totok Gunawan
(PT Indonesia Power, Indonesia)
- P-14 GLIFTER (Gsw LIFTER)
Haddy Suwarna
(PT PLN (Persero) Power Generation and Transmission Unit of Kalimantan, Indonesia)
- P-15 Expert System for Problems Handling in Water Vapor Chemical Cycles in Steam Power Plant
Harry Indrawan
(Manager of Research and Technology Assessment of Energy and Power Generation System, PT PLN (Persero) Research Institute, Indonesia)

Session 3 : Distributed Power Generation

Chair person: *Dr. Hongzhi Liu (Engineer, Renewable Energy Research Center, CEPRI, China)*

- 17:30 – 17:55 S3-1 ‘Blockchain: Inflated hype or value-adding technology for the energy sector?’
Dr. Felix Cebulla
(Senior Expert, Corporate Technology, innogy SE, Germany)

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- 17:55 – 18:20 S3-2 ‘Key Technologies and Control Strategy for Distributed Photovoltaic Micro-Grid’
Mr. Tong Wang
(NARI Research Institute, Nanjing NARI Group Co. Ltd., China)
- 18:20 – 18:45 S3-3 ‘Effects of regenerator structure on performance of free piston stirling engine (FPSE)’
Dr. Wonshik Park
(Principal Researcher, R&D Strategy and Policy Office, KEPCO Research Institute, Korea)
- 18:45 – 19:10 S3-4 ‘How Gas-To-Liquids (Gtl) Based Technology Can Help To Enhance The Reliability Of Transformer’
Mr. Volker Null
(Product Application Specialist, Shell, Germany)
- 19:30 – 22:30 Dinner [*Ayodya Resort Bali, Balinese Theater, Level 1*]

2019 IERE-PLN Bali Workshop

- Workshop Day 2 -

Wednesday, March 13, 2019

Ayodya Resort Bali, Level 1, Grand Ballroom

Session 4 : **Electric Vehicle (EV) Infrastructure**

Chair person: Dr. Seong-Woo Yim (Senior researcher, New Energy business Laboratory, KEPCO Research Institute, Korea)

- 08:30 – 08:55 S4-1 ‘A Green Cloud Enabled EV Charging EcoSystem’
Ir. Nirinder Singh Johl
(Managing Director, TNBX Sdn Bhd, Retail Division, Tenaga Nasional Berhad, Malaysia)
- 08:55 – 09:20 S4-2 ‘Development of 6.6kW class wireless power transfer EV charging system and field tests for KEPCO application’
Dr. Seong-Woo Yim
(Senior researcher, New Energy business Laboratory, KEPCO Research Institute, Korea)
- 09:20 – 09:45 S4-3 ‘Research on Key Technologies of Multi-domain Sharing Modes of Electric Vehicles ‘
Ms. Linru Jiang
(Research Associate, Department of Power Consumption & Energy Efficiency, CEPRI, China)
- 09:45 – 10:10 S4-4 ‘**EV Technology: Global Developments and Infrastructure Considerations**’
Mr. Kumai Rashid
(ABB, Singapore)
- 10:10 – 10:35 S4-5 ‘Electric Vehicle Charging with Dynamic Energy Management’
Francko Nasarino
(Final Distribution Product Application Specialist, Schneider Electric, Indonesia)
- 10:35 – 10:45 Coffee Break

Session 5 : Advanced Thermal Power Generation

Chair person: *Mr. U. Anang Ischak (Ops Eng Team Manager, Facilities Engineering, Star Energy Geothermal Darajat II, Limited, Indonesia)*

- 10:45 – 11:10 S5-1 ‘Development of biowaste treatment technology for conversion of EFB to high quality biofuel’
Dr. Bum-Shin Kim
(Principal Researcher, KEPCO Research Institute, KEPCO, Korea)
- 11:10 – 11:35 S5-2 ‘Efficiency Improvement by Implementing Energy and Operation Management System (NEMESYS)’
Mr. Andi Taufik Saputra
(Efficiency Senior Supervisor, Engineering, PT Indonesia Power, Indonesia)
- 11:35 – 12:00 S5-3 ‘Condition Monitoring and Diagnosis of Power Plants using EnergyWin™’
Mr. Eiichi Koda
(Deputy Associate vice president, Energy Platform Creation Sector, Energy Engineering Research Laboratory, CRIEPI, Japan)
- 12:00 – 12:25 S5-4 ‘Utilization of Biofuel in Kumai Diesel Power Plant, Central Kalimantan, Indonesia: Power Plant Performance and Operating and Maintenance Costs’
Mutiara Sofia Siregar
(Engineer, Operation Division of Kalimantan Region, PT PLN (Persero) Head Office, Indonesia)

12:25 – 13:25 Lunch break, Poster Session & Exhibition

Session 5 : Advanced Thermal Power Generation (continued)

Chair person: *Mr. Andi Taufik Saputra (Efficiency Senior Supervisor, Engineering, PT Indonesia Power, Indonesia)*

- 13:25 – 13:50 S5-5 ‘Implementation of Plant Performance & Reliability Monitoring (P2RM) to Darajat and Salak Geothermal Power Plant’
Mr. U. Anang Ischak
(Ops Eng Team Manager, Facilities Engineering, Star Energy Geothermal Darajat II, Limited, Indonesia)

- 13:50 – 14:15 S5-6 ‘Electromagnetic Risk Management in Digital Power System’
Prof. Dr. Ing. Eko Supriyanto
(Senior Consultant to PETRONAS and Head of Electromagnetic Compatibility Laboratory, Universiti Teknologi Malaysia, Malaysia)
- 14:15 – 14:25 Coffee Break
- 14:25 – 14:50 S5-7 ‘Tackling Varnish Formation in Turbomachinery Which Lead to Maximize Turbine and Compressor Availability’
Bambang Wahyudi
(Country Technical Manager, Shell, Indonesia)
- 14:50 – 15:15 S5-8 ‘Steam Turbine Lifetime Assessment’
Ilham Kurniawan
(Ops Eng Team Leader, Facility Engineering, Star Energy Geothermal Salak, Ltd., Indonesia)
- 15:15 – 15:40 S5-9 ‘Modeling, Design, and Simulation Thermal Solar Power Plant by using Parabolic trough Collector to Generate 100kW steam located in Nusa Tenggara’
Hendra Yudisaputro
(Junior Efficiency Specialist, Engineering, PT Indonesia Power, Indonesia)

Closing Remarks

- 15:40 – 15:45 TBD (from PT PLN (Persero) , Indonesia)
- 15:45 – 15:50 *Dr. Takao Watanabe (Secretary General, IERE Central Office)*

Social Event (optional)

The Kecak Fire Dance at Pura Uluwatu Temple and Seaside Dinner

- 16:15 Meeting point Ayodya Resort Bali
Bus transfer, 1 hour
- 17:15 Sightseeing Pura Uluwatu Temple
- 18:00 – 19:00 Kecak Fire Dance Performance at Pura Uluwatu Temple
Bus transfer, 40 minutes
- 20:00 – 21:00 Seaside Dinner at Jimbaran Beach
Return, bus transfer, 25 minutes
- 21:25 Arrival Ayodya Resort Bali

- Time schedule may be changed.
- Please register and finish payment by February 11 with Workshop registration

THE DRAMATIC KECAK DANCE: EPISODE TAKEN FROM THE RAMAYANA EPIC POEM

Kecak Dance is one of Balinese artistic masterpieces in the form of a dance and musical drama. Held in the open air at sunset, usually above a cliff facing the sea, the drama depends entirely on the natural light of day. Starting at dusk, the story continues into the dark, when only light comes only from flickering bamboo torches.

What makes this dance particularly unique is that the drama uses no artificial backdrop, involving no musical instrument. The focus is entirely on the concentric circles of about 50-60 men, bare-chested, wearing only distinct Balinese sarongs sitting cross-legged around a set of torches in the center. Instead of the traditional “gamelan” orchestra which usually accompanies other Balinese traditional performances, the Kecak is simply accompanied by the chanting of the chorus of men representing an army of monkeys continuously intoning “Cak! Cak! Cak!” or “Keh-Chak” in polyrhythmic sounds during almost the entire performance. This amazing human voiced orchestra is led by a soloist, who is in charge of indicating the high and low notes, and also acts as narrator. The effect, after a while, is to provide a wall of dramatic sound against which the action of the play is enacted.

The performance relates the shorter version of the epic Ramayana Saga with dancers playing as Rama, Shinta (Sita), Lakshmana, Rahwana (Ravana), Hanoman (Hanuman), Sugriwa (Sugriva), and other characters.

Kecak Dance is said to originate from a Balinese ancient ritual called Sanghyang, aimed as a form of exorcism or to repel evil spirits in which dancers fall into a trance. Kecak Dance is regularly performed in many places all over Bali Island. However, the best place to watch this spectacular show is at the Pura Uluwatu, where the dance is performed daily with as background the dramatic sunset. (indonesia.travel)



Technical Tour (Optional) - Workshop Day 3 -

Thursday, March 14, 2019

Visiting Pesanggaran Engine Gas Power Plant and lunch

(For participants who have booked the optional Technical Tour)

09:15	Meeting point Ayodya Resort Bali Bus transfer, 25 minutes
09:40	Pesanggaran Engine Gas Power Plant, PT Indonesia Power Duration: about 2 hours
11:50	Bus transfer, 40 minutes
12:30	Lunch
13:30	Sightseeing the Garuda Wisnu Kencana Cultural Park Return, bus transfer, 40 minutes
15:20	Arrival at Ayodya Resort Bali

- Time schedule may be changed.
- The maximum number of participants is up to 70.
- Please register and finish payment by February 11 with Workshop registration
- Admission will be allotted in order of application.

Pesanggaran Engine Gas Power Plant – Pesanggaran, Bali

The Pesanggaran Bali 200 MW power plant is the largest engine-based power plant in Indonesia. Operated by PT. Indonesia Power, a subsidiary of the state utility PT Perusahaan Listrik Negara (PLN) (Persero), this multi-fuel power plant is answering challenging condition by its unique operational and fuel flexibility. With a fast start and stop ability to reach full loading in under 10 min and seamless control over load fluctuations, this plant provides a greater consistency in the supply of electricity to the Java-Bali grid.

Pesanggaran Bali is powered by 12 Wärtsilä 50DF engines that can run on either regasified liquefied natural gas (LNG), light fuel oil (LFO), or heavy fuel oil (HFO). When the gas supply is uncertain, or prices are volatile, it is possible to switch from gas to liquid fuel, and vice versa, even during operation whilst also maintaining a high output.

Announced as the winner of the best dual-fuel power plant of 2016 by Asian Power Awards, the Pesanggaran Bali was chosen for its large nominal output and ability to perform efficiently while operating on natural gas or HFO. (*Pesanggaran Bali-Wartsila Reference Sheet*)

Technical data of the Pesanggaran Engine Gas Power Plant

Type	Multi-fuel Power Plant
Operating mode	Flexible baseload
Genset	Wartsila 18V50DF
Number of unit(s)	12 units
Installed Power (Total)	200.16 MW
Operated Power	182.40 MW
Fuel	Gas/MFO/HSD
Operated since	2015



Call for Papers (closed)

<<**Abstract Submission: No later than December 7, 2018**>>

~~You are kindly invited to submit abstracts for the Oral Session or Poster Session for the 2019 Bali Workshop by e-mail by December 7, 2018~~

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/2019-bali/forspeakers.html>

- Abstract is uploaded to IERE’s website and opened to the public after the workshop.
- The medium of communication is English.

<< **Presentation files Submission: No later than February 28, 2019** >>

You are kindly requested to submit presentation files (Powerpoint) of the Oral Session and Poster Session for the 2019 IERE - PLN Bali Workshop by email by **February 28, 2019**.

- Presentation file will be uploaded to IERE website and opened to all participants before the Workshop.
- The medium of communication is English.

Exhibition

The conference will be accompanied by an exhibition, which gives exhibitors the opportunity to present their companies and/or products.

Exhibitors are required to register, pay the participation fee, and contact IERE Central Office.

Registration

(a) On-line Registration

URL: https://www.iere.jp/cgi-bin/event_form/19WS/event_form_entry.cgi

or

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

Deadline: February 11, 2019

Registration Fee

Please make payment of following fee **No later than February 11, 2019** 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 March 11, official dinner on March 12 and conference package:

IERE members: US\$ 350.-

Non-members: US\$ 525.-

Academic participants: US\$ 260.-

Recommended options

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

The Kecak Fire Dance at Pura Uluwatu Temple and Seaside Dinner on March 13

Technical Visit(optional): US\$ 45.-

Visiting Pesanggaran Engine Gas Power Plant (tentative) on March 14

*The maximum number of participants is up to 70.

** This offer is on a first-come-first-served basis.

Payment

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

Deadline: February 11, 2019

(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_19WS.html

(b) Bank Transfer *

Name of the Bank:	MUFG Bank, 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

For participants from some countries needing a Visa to enter Indonesia, 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 26.

* PT. PLN 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 PT. PLN, so please submit the form as soon as possible.

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

[Visa information]

Considering a participation on a Workshop/Conference can be decided as business purpose, visitors from NON-ASEAN countries are recommended to obtain VOA (Visa On Arrival) at the arrival airport.

The outline of VOA is as follows.

- This VOA can be obtained by visitor from 68 countries
- Expiration date of the applicant's passport must be at least 6 months at the date of entry.
- At least one blank visa page
- Round-trip airplane ticket
- Visa on Arrival fee (USD 35: Cash in US dollars only)

For more information: <http://www.imigrasi.go.id/index.php/en/public-services/visit-visa>

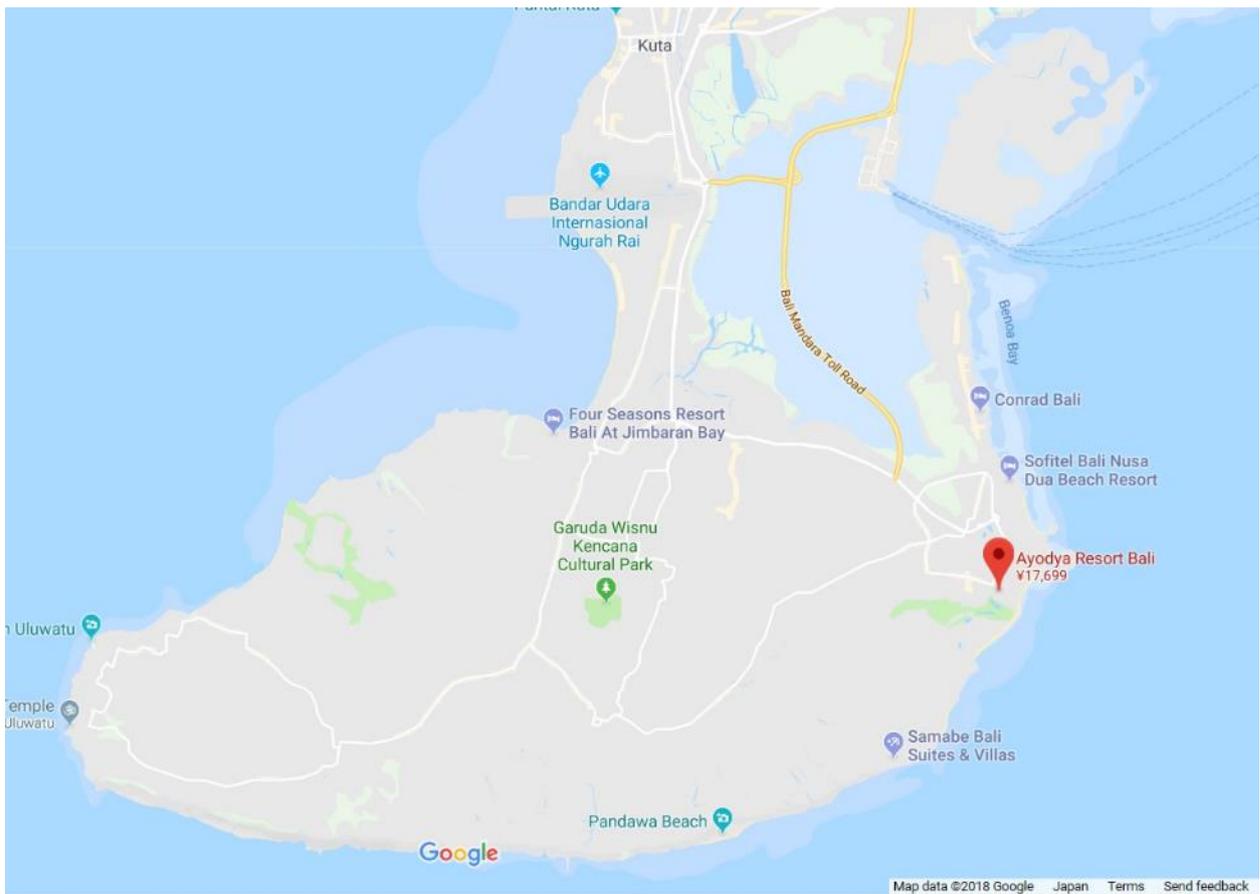
Conference Venue & Accommodations

Conference Venue

Ayodya Resort Bali, Bali

Location: Jalan Pantai Mengiat, P.O.Box 46 Nusa Dua 80363, Bali, Indonesia,
Website: <http://www.ayodyaresortbali.com/>





Map URL: <https://goo.gl/maps/TgY6kwdCjsw>

Accommodations

Ayodya Resort Bali, Bali

Location: Jalan Pantai Mengiat, P.O.Box 46 Nusa Dua 80363, Bali, Indonesia,

Website: <http://www.ayodyaresortbali.com/>

Ayodya Resort Bali gives special rates for conference participants as indicated below.

Website: <https://bit.ly/2y8HihG>

*The reservation of accommodation is based on availability.

** Please be sure to read cancellation policy on the website before application.



Submission Items & Deadlines

For Participants [including speakers and exhibitors]

Items	Format No.	Deadline	To:
Registration Form	1	February 11, 2019	register(at)iere.jp [Please substitute (at) with @]
VISA Form (If necessary)	5	February 11, 2019 (It takes a few weeks to issue)	Ditto
Registration Fee	—	February 11, 2019	Please refer to Page 18
Social Event Fee [optional]	—	February 11, 2019	Ditto
Technical Visits Fee [optional]	—	February 11, 2019	Ditto

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

URL: <https://www.iere.jp/events/workshop/2019-bali/register.html>

For Speakers

Items	Format No.	Deadline	To:
Abstract	2	December 7, 2018	register(at)iere.jp [Please substitute (at) with @.]
Speaker's Information	3	February 11, 2019	
Copyright Permission	4	February 11, 2019	
Presentation Slides (PowerPoint file)	—	February 28, 2019	

The formats (No.2 to 4) can be downloaded from

URL: <https://www.iere.jp/events/workshop/2019-bali/forspeakers.html>

Speakers are kindly requested to submit their Speaker's Information and Copyright Permission **February 11, 2019** and their Presentation Slides (PowerPoint file) **by February 28, 2019**.

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.

Abstract and presentation file will be uploaded IERE website and opened to all participants before the Workshop and to the participants of the Workshop and IERE members after the Workshop.

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 February 28 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 Pre-Function room next to the Grand Ball room.
- Presenters are kindly requested to stay around their posters at coffee break period. Main discussion period is afternoon coffee break on March 12.

Language

Working language is English.



REGISTRATION FORM

Format 1

2019 IERE-PLN Bali Workshop March 11 – 14, 2019, Bali, Indonesia

Please type at appropriate boxes, then send this form **February 11, 2019**
via email to: IERE Central Office: **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		
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 <u>Title:</u> <input type="checkbox"/> No	
7. Registration Fee [March 11-14]	[Participants including speakers and exhibitors should pay registration fees.] <input type="checkbox"/> USD 350 : IERE Member <input type="checkbox"/> USD 525 : Non-IERE Member <input type="checkbox"/> USD 260 : Academia Note: When participation is canceled irrespective of the reason after February 11, 2019, Registration Fee might be charged or not be reimbursed.	
8. Welcome Reception attendance [March 11] not Mandatory	[For reservations, please let us know your attendance.] <input type="checkbox"/> Yes (Included in Registration Fee) Number of Accompanying Person if you have: ___ person(s) (free) <input type="checkbox"/> No	
9. Official Dinner attendance [March 12] not Mandatory	[For reservations, please let us know your attendance.] <input type="checkbox"/> Yes (Included in Registration Fee) Number of Accompanying Person if you have: ___ person(s) (add USD 60 per person) <input type="checkbox"/> No	
10. Social Event (Optional) [March 13] The Kecak Fire Dance and Seaside Dinner	<input type="checkbox"/> Yes (USD 60) Number of Accompanying Person if you have: ___ person(s) (add USD 60 per person) <input type="checkbox"/> No	

11. Technical Visit (Optional) [March 14] Visiting Pesanggaran Engine Gas Power Plant	<input type="checkbox"/> Yes (USD 45) Number of Accompanying Person if you have: ___ person(s) (add USD45 per person) <input type="checkbox"/> No * The maximum number of participants is up to 70. ** Admission will be allotted in order of application.
12. Payment Amount	Total: USD _____
13. Payment Method [to be completed by February 11]	<input type="checkbox"/> Credit Card: https://www.iere.jp/Payment/paypal_19WS.html <input type="checkbox"/> Bank Transfer (available only for IERE members) * IERE Central Office will send you the invoice.
14. Invitation Letter for VISA	PT. PLN may be able to issue an invitation letter for participants who need to apply for Visa. <i>Disclaimer: PT. PLN reserves the right to fulfill or decline, at PT. PLN's discretion, requests for letters of invitation for visa application support purposes.</i> <input type="checkbox"/> I need an invitation letter for Visa application. *Please submit the `Format 5` of the 1st Announcement to IERE Central Office by e-mail by Feb. 11, 2019. <input type="checkbox"/> No
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
16. Personal Data	<input type="checkbox"/> I agree to disclose my personal data for the Participants list of this Workshop.

Central Office may enclose 'Participants list' in the conference bag to facilitate communication among participants.
 The list will contain

1. Name
2. Position, Department
3. Company/ Organization etc.
4. E-mail address
5. Country/Region

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**

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. * PT. PLN (Persero) 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 PT. PLN (Persero), so please submit the form as soon as possible. Disclaimer: PT. PLN (Persero) reserves the right to fulfill or decline, at PT. PLN (Persero)'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"/> March 11, 2019 Welcome Reception		
	<input type="checkbox"/> March 12, 2019 IERE-PLN Bali Workshop (Day 1)		
	<input type="checkbox"/> March 13, 2019 IERE-PLN Bali Workshop (Day 2)		
	<input type="checkbox"/> March 13, 2019 Social Event		
	<input type="checkbox"/> March 14, 2019 Technical Visit		

IERE Members List (as of January 18, 2019)

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Canada	Powertech Labs Inc.		
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France	Enedis	ENGIE	
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Hong Kong SAR	CLPRI		
Indonesia	PLN		
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	NGK	Sumitomo Electric	Shikoku EPCO
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Taiwan	TPC		
Thailand	EGAT	EURC*	
U.S.A.	EPRI	SwRI	

*: Academia

About PT. PLN (Persero)

PLN is the only state-owned enterprise in the power sector and ensures that everyone throughout Indonesia has access to electricity. Initially established by President Soekarno on October 27, 1945, PLN has since made rapid progress and in 2015 was recognized as one of the 500 biggest companies in the world (rank 480, Fortune 500).

As a holding company, PLN has attained AAA rating from PT Pemeringkat Efek Indonesia and BBB-, BB, and Baa3 - from Fitch Ratings, Standard & Poor's, and Moody's - in 2015. PLN business has grown to other business sectors through subsidiaries, associate entities, joint ventures, and special purpose vehicle. Within headquarters in Jakarta, Indonesia PLN's core business remains in electricity supply, especially in power generation, transmission, and distribution.

Nowadays PLN owns and operates 39.562 MW power generation, 48.901 kms transmission lines, 1.028.679 distribution lines, 113.791 MVA substation. Its customer is already exceeding 68 million with more than 25 million using pre-paid meter technology.



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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1st issue: January 11, 2019
2nd issue: January 16, 2019
3rd issue: January 31, 2049