Preliminary Announcement

Call for Papers

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: 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 3: 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 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

Details to be announced

Exhibition

Details to be announced

Program

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

Call for Papers

<<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 "@"]

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As for the **format of the abstract**, please refer to "Events" page on IERE website.

https://www.iere.jp/events/workshop/2019-bali/index.html

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

Registration

Detailed information on Registration will be announced in the First and Second Announcements, which will be delivered later.

Registration Fee

The Registration fee will be informed later. Registration fee will cover attendance for the conference, reception/cocktail, Lunch and Dinner, conference package.

- The expected Registration fee is 300-400 USD for IERE members, 450-600 USD for IERE non-members and 225-300 USD for academia.

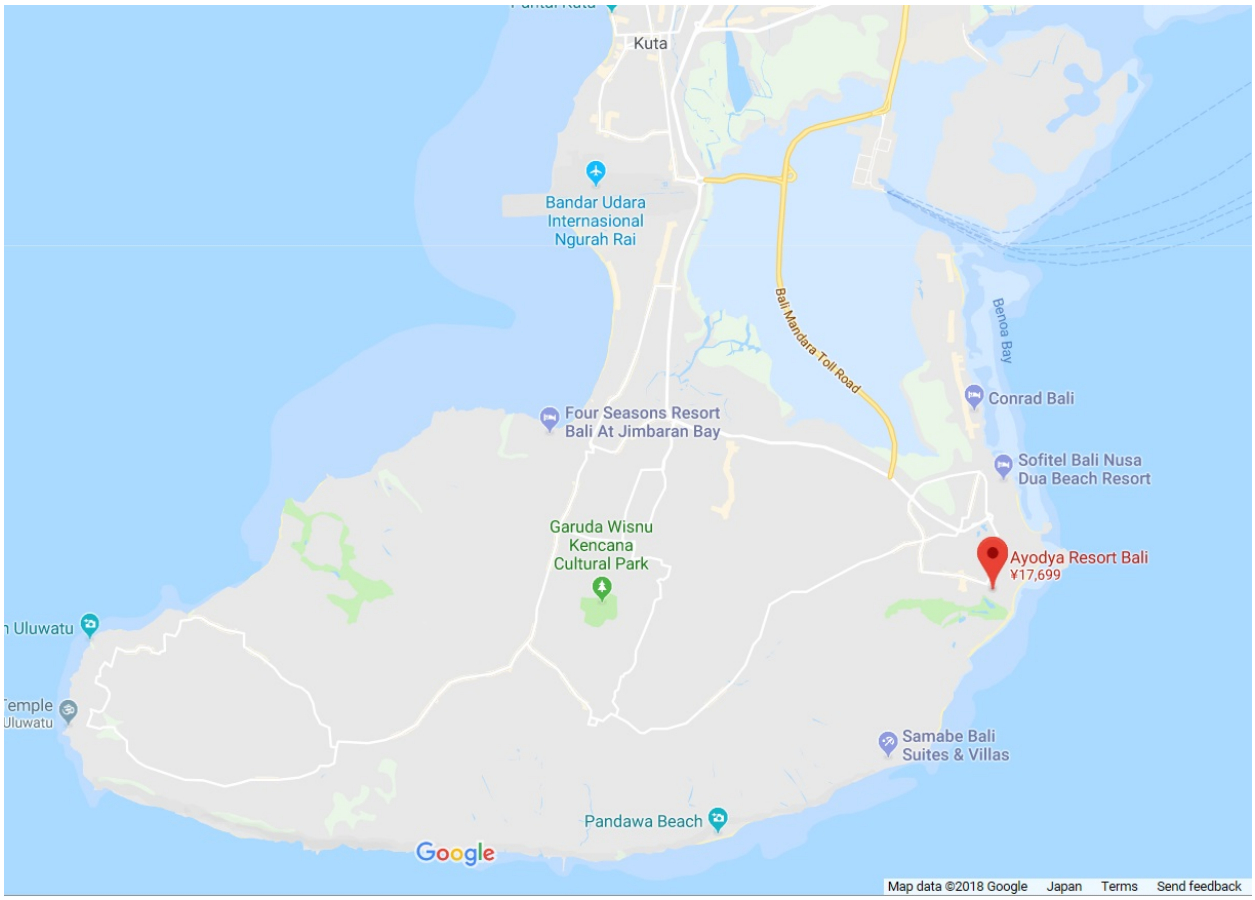
Details including cancellation policy will be announced in the First and Second Announcements.

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/

Rooms at special rates will be prepared for conference participants.
The expected Room Charge will be from 1,900,000 IDR (Approximately 136 USD*)
*Calculate the exchange rate 1 USD in 14,000 IDR

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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