First Announcement

The 2019 General Meeting and PIESA-IERE South Africa Forum

“Electricity & the 4th Industrial Revolution
– an Africa perspective”

October 28 - 31, 2019
Sun City, South Africa

Organized by PIESA and IERE
Electricity & the 4th Industrial Revolution – an Africa perspective

About the theme

What is the 4th Industrial Revolution?

In a nutshell, it is the advancement and emergence of new technologies that is ushering in a new era that sees a greater impact of digitization on our lives, in ways that are new and unanticipated.

As a quote from an article on the World economic forum website, “The Fourth Industrial Revolution can be described as the advent of “cyber-physical systems” involving entirely new capabilities for people and machines. While these capabilities are reliant on the technologies and infrastructure of the Third Industrial Revolution, the Fourth Industrial Revolution represents entirely new ways in which technology becomes embedded within societies and even our human bodies.”

With emerging technologies moving at a rate of knots, the question then is, what do we want these technologies to do for us and what impact will it have on all of us?

As the novelist William Gibson famously said: “The future is already here – it’s just not very evenly distributed.” Indeed, it is time to see an even distribution of this potential. It is time for Africa!

Who should attend?

The Forum 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  October 28, 2019   Welcome Reception (In the evening)
Tuesday  October 29, 2019   The 2019 General Meeting and
                             PIESA-IERE South Africa Forum (Day 1),
                             Official Dinner
Wednesday October 30, 2019  The 2019 General Meeting and
                             PIESA-IERE South Africa Forum (Day 2)
Thursday October 31, 2019   Safari Tour (Optional)

Program & Session themes:
Session structure and speakers may be subject to change according to the submission of contributions.

October 28, 2019
Welcome Reception

October 29, 2019
Plenary Session
Opening Speech:  Mr. Gregory Tosen, IERE Chair, PIESA, South Africa
Welcome Speech:  Details to be announced
Keynote Speech:  Details to be announced

General Session
General Session 1  The report of IERE activities by IERE chair and IERE central office
General Session 2  The report of TIS activities by PIESA
Session 1

Theme: Evolving 4IR technologies and its effect on the customer

There is no doubt digital transformation has blurred the line between man and machine, but in the process, it has also created countless opportunities to engage and assist customers. As the Fourth Industrial Revolution continues to evolve, the key to business success will be evolving simultaneously in order to provide a revolutionary customer experience. IoT, for example, is in the early stages of maturity, and most customers have yet to unlock the full potential and functionality of connected devices.

Potential topics include:
1. Disruptive technologies
2. The internet of things (IoT)
3. Artificial intelligence (AI)
4. Advanced robotics
5. Distributed manufacturing

Session 2

Theme: 4IR’s impact on revenue collection and non-technical losses

The revenue model on which utility businesses are based on is under threat from the shifting industry norms. The 4th industrial revolution is underway and already utilities are witness to digitalisation, decarbonisation and decentralisation – all affecting their traditional revenue collection strategies and non-technical losses mitigation approaches.

Potential topics include:
1. Smart meters
2. Evolving business models
3. Deflection of customers from the grid
4. Impact of Distributed energy resources on a utilities revenue
5. Innovative tariff models

October 30, 2019

Session 3

Theme: Asset Management – let’s get smart about it

Distribution power companies are subject to increasing quality, safety and environmental constraints that, in a highly competitive arena, call for the maximization of asset reliability, efficiency and flexibility, while operation and maintenance costs are reduced. To this end distribution energy companies are adopting an intelligent asset management approach to asset management. Smart or intelligent asset management is a cutting-edge technology that is being increasingly adopted by various industries, and with future
inclusion of Industrial Internet of Things (“IIOT”), it is deemed as a sheer necessity in a manufacturing facility where downtime / slowdown affects the bottom line results.

Potential topics include:

1. Smart intelligent systems for effective asset management
2. Smart asset management systems
3. Cyber physical systems
5. Industrial Internet of Things (“IIOT”)

Session 4

Theme: Advanced distribution automation in the 4IR era

The goal of Advanced Distribution Automation (“ADA”) is real-time adjustment to changing loads, generation, and failure conditions of the distribution system, usually without operator intervention. This necessitates control of field devices, which implies enough information technology (IT) development to enable automated decision making in the field and relaying of critical information to the utility control centre. The IT infrastructure includes real-time data acquisition and communication with utility databases and other automated systems. Accurate modelling of distribution operations supports optimal decision making at the control centre and in the field. In the era of the 4IR we are going to see a significant convergence of Operating Technologies (“OT”) and Information Technologies (“IT”) underpinned by smart communications to achieve the goal of ADA.

Potential topics include:

1. Data preparation and analytics
2. Computer-aided simulation
3. Distribution operation model and analysis
4. Fault location, isolation, and service restoration
5. Advanced Voltage and Var Control

Session 5

Theme: Distributed Renewable Energy Technologies: Are we ready?

At the distribution level, increasing numbers of renewables and Distribution Energy resources (“DERs”) in general present a host of issues. One of the major challenges is that distribution system operators must transition from managing the safety and reliability of a system with a limited number of energy producers and unidirectional and predictable flow from substations to customers to a system with power flows from many sources at varying times of day and in different directions. These changes mean not only greater operational complexity, but also more complex maintenance and emergency operations. The result will be needed modifications in the design and operation of the distribution
system and investments in new or upgraded circuits as well as additional tools, sensors and communication systems.

Potential topics include:

1. Impact of DER’s on a utility’s revenues
2. Evolving business models to accommodate increasing ingress of renewables on a utility’s business
3. The need for an effective regulatory environment to accommodate DER’s
4. Funding of renewable energy technologies
5. Safe grid integration of DER’s

Closing Remarks

October 31, 2019

Safari Tour (optional)

Details to be announced

Poster Session

Details to be announced

Exhibition

The conference will be accompanied by an exhibition, which gives exhibitors the opportunity to present their companies and/or products. Please contact PIESA or IERE for details.
Program (subject to change)

October 28, 2019
18:00 - 20:30 Registration and Welcome Reception

October 29, 2019
The 2019 General Meeting and PIESA-IERE South Africa Forum (Day 1)
08:30 - 09:00 Registration
09:00 - 10:30 Opening and Keynoter Addresses
10:30 - 11:00 General Session
11:00 - 12:00 Forenoon Sessions
12:00 - 13:15 Lunch
13:15 - 17:00 Afternoon Sessions
18:00 - 20:00 Conference Official Dinner

October 30, 2019
The 2019 General Meeting and PIESA-IERE South Africa Forum (Day 2)
08:30 - 11:45 Forenoon Sessions
11:45 - 13:00 Lunch
13:00 - 17:00 Afternoon Sessions and Plenary Conclusion Session

October 31, 2019
Safari Tour (optional)
Around 06:30 Departure at Suncity Hotel
Around 10:00 Return to Suncity Hotel
Call for Papers

<<Abstract Submission: No later than July 15, 2019>>

You are kindly invited to submit abstracts for the Oral Session or Poster Session for the 2019 South Africa Forum by e-mail.

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.


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

<< Presentation files Submission: No later than October 4, 2019 >>

You are kindly requested to submit presentation files (Powerpoint) of the Oral Session and Poster Session for the 2019 South Africa Forum by email by October 4, 2019.
- Presentation file will be uploaded to IERE website and opened to all participants before the Forum.
- The medium of communication is English.
# Submission Items & Deadlines

## - IERE Members & Non-Members other than Africa -

### For Participants [including speakers]

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<td>register(at)iere.jp [Please substitute (at) with @]</td>
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The formats (No.1 and 5) can be downloaded from


### For Speakers

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


Speakers are kindly requested to submit their Speaker’s Information and Copyright Permission and their Presentation Slides (PowerPoint file) **by October 4, 2019.**

## - PIESA Members & Non-Members from Africa -

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Please refer to the following website. (To be determined)
Registration

- IERE Members & Non-Members other than Africa -
(a) On-line Registration (Coming soon)
   URL: https://www.iere.jp/cgi-bin/event_form/19GM/event_form_entry.cgi
   or
(b) Please submit a registration form (Format 1) to IERE Central Office by e-mail.
   **Deadline: September 27, 2019**

- PIESA Members & Non-Members from Africa -
  Please refer to the following website. (To be determined)

Registration Fee

Please make payment of following fee **No later than September 27, 2019** 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 October 28, official dinner on October 29 and conference package:

When participation is canceled irrespective of the reason after September 27, 2019, Registration Fee might be charged or not be reimbursed.

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**Recommended options**

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Payment

- IERE Members & Non-Members other than Africa -
On-line Credit Card Payment and Bank Transfer are available.
**Deadline: September 27, 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_19GM.html](https://www.iere.jp/Payment/paypal_19GM.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: BOTKJPJT

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

- PIESA Members & Non-Members from Africa -
Please refer to the following website. (To be determined)

Visa
For participants from some countries needing a Visa to enter South Africa, please consult with travel agent in your country for the details. For latest status and further details, please consult travel agencies in your local area.
If you need an Invitation Letter*, please refer to ‘Invitation Letter for Visa’ (Format 5).

* PIESA 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 PIESA, so please submit the form as soon as possible.

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

Airport
The nearest international airport to the venue is O.R. Tambo International Airport (Airport Code: JNB), which is located about 200 km southeast of the venue. It takes about 3 hours by car.
For Airport information, please refer to [http://www.airports.co.za/airports/or-tambo-international](http://www.airports.co.za/airports/or-tambo-international)
Airport Transfers

Airport pick-up service of the travel agency recommended by Sun City Resort:

[mankwegametrackers.co.za]
https://www.mankwegametrackers.co.za/
Mail: suncity@mankwegametrackers.co.za
Tel: +27 14 495 2980 Ext 114
Sun City Resort, 1 Sun Village Road, Sun City, Pilanesberg, 0310
Conference Venue & Accommodations

Conference Venue

Sun City Conference Centre, South Africa

Location: Sun City Resort, 0316, North West Province, South Africa
Website: http://www.suninternational.com/sun-city/

Location of Sun City

https://goo.gl/maps/kxx4RVvxdC2SVjTf9
Accommodations

Sun City Resort, South Africa (Various hotel options at the resort)

Location: Sun City Resort, 0316, North West Province, South Africa
Website: http://www.suninternational.com/sun-city/

Discounted group rates are available.
Please send Room Reservation Form directly to Sun City Resort as below.

- PIESA/IERE don’t take any responsibility in room reservation of each participant.
- No room block is set at the hotel. Early reservation is recommended.
- For further details as to Guarantee & Cancellation Policy etc., please confirm the Hotel.

Soho Hotel in Sun City Resort

CASCADIES Hotel in Sun City Resort
REGISTRATION FORM
The 2019 General Meeting and PIESA-IERE South Africa Forum October 28 - 31, 2019
Sun City, South Africa

Please type ☑ at appropriate boxes, then send this form September 27, 2019
via email to: IERE Central Office: register(at)iere.jp [Please substitute (at) with @] / Fax: +81-3-3488-5100

| 1. Name | ☐ Prof. ☐ Dr. ☐ Mr. ☐ Ms. ☐ Other, Please specify: |
| 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 | ☐ Yes Title:
☐ No |
| 7. Registration Fee | [Participants including speakers should pay registration fees.]
☐ USD 800 : IERE Member
☐ USD 950 : Non-IERE Member
☐ USD 550 : Academia |
| 8. Welcome Reception attendance | ☐ Yes (Included in Registration Fee)
Number of Accompanying Person if you have: ___ person(s)
(add USD 60 per person)
☐ No |
| [October 28] | not Mandatory |
| 9. Official Dinner attendance | ☐ Yes (Included in Registration Fee)
Number of Accompanying Person if you have: ___ person(s)
(add USD 60 per person)
☐ No |
| [October 29] | not Mandatory |
| 10. Safari Tour (Optional) | ☐ Yes (USD 50)
Number of Accompanying Person if you have: ___ person(s)
(add USD 50 per person)
☐ No |
| [October 31] | |
| 11. Payment Amount | Total: USD ________ |
| 12. Payment Method | ☐ Credit Card: https://www.iere.jp/Payment/paypal_19GM.html
☐ Bank Transfer
* IERE Central Office will send you the invoice. |
| [to be completed by September 27] | |
*Please submit the “Format 5” to IERE Central Office by e-mail by September 27, 2019.
☐ No |
| 14. Information from IERE | Do you agree with receiving e-mail notice on future activities/IERE E-mail Magazine from IERE Central Office?
☐ Yes ☐ No |
| 15. Personal Data | Do you agree to disclose your personal data for the participants list of this forum?
☐ Yes ☐ No |

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.
# 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 @].

☐ **I need an invitation letter for Visa application.**

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**Colloquium Participation**

☐ October 28, 2019  Welcome Reception

☐ October 29, 2019  PIESA-IERE South Africa Forum (Day 1)

☐ October 30, 2019  PIESA-IERE South Africa Forum (Day 2)

☐ October 31, 2019  Safari Tour
### IERE Members List  
**(as of June 27, 2019)**

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*: Academia
About PIESA

The Power Institute for East and Southern Africa (PIESA) is a voluntary regional power utility association established on 28 February 1998. The PIESA aims to improve electrification in East and Southern Africa through sharing information, research, technology, skills and experiences for the benefit of customers and suppliers in the electricity distribution industry. The main focus is on technical rationalisation to achieve economies of scale with local manufacturers in an effort to enhance electrification in the region.

The PIESA’s core activities are conducted through its four Advisory Committees:

- Electrification
- Non-Technical Loss Reduction
- Environmental and Safety Management
- Standardization

Website: [http://piesa.publishpath.com/](http://piesa.publishpath.com/)

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.
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

1st issue: Jun 28, 2019