



Second Announcement

The 2019 General Meeting and PIESA-IERE South Africa Forum

"Electricity & the 4th Industrial Revolution - an Africa perspective"



Sun City, South Africa

October 28 - 31, 2019 Sun City, South Africa

Organized by PIESA and IERE





Message from IERE Chair

I welcome you all to the 2019 General Meeting and PIESA-IERE South Africa Forum to be held in South Africa. It will be a meeting platform to share ideas and experiences by electricity utility executives, operational staff, research professionals and other stakeholders from Africa and the international community to evaluate the trends in the supply of electricity in support of accelerated electrification.

The Fourth Industrial Revolution's technologies, such as artificial intelligence, autonomous vehicles and drones, the Internet of Things, advanced materials, biotechnology are particularly relevant. Many are already showing promise at reshaping a number of sectors, including transport, energy, waste, water, and cities, and change will only accelerate. Energy utilities can harness these pioneering technologies, combined with each other and with new business models, to not only enhance economic productivity but to reduce environmental impact and increase social wellbeing, with particular reference to the need of stimulating reliable, sustainable and affordable electricity supply to the African continent.

Electricity is a catalyst for economic and social development, and therefore the need to increase household access is a key challenge for us all, and Africa offers enormous opportunities for growth in the areas of technology solutions and in particular 4IR technologies in the area of strong and reliable technology to manage a network – or simply to run a billing operation efficiently and I believe the role of smart systems, the IOT will have a key role to play.

The Forum's theme "Electricity and the 4th Industrial Revolution – an African Perspective" is totally appropriate. The need to understand the challenges that face our business over the next decades is an imperative and, as such, the sharing of knowledge, experiences, successes and failures will indeed go a long way in understanding which technology roadmap of the future. With this in mind, I hope that you will join me at the PIESA/ IERE South African Forum to be held at the most beautiful venue of Sun City, South Africa, I believe it will truly be a significant forum and I trust that you will participate, share opinions, challenge each another in order to find the technological solutions that would assist us in the future of a global sustainable electricity future.

The Forum's networking and discussion platforms will explore how utilities can be more efficient in terms of applying and understanding the value added of 4IR and offer cost-effective services through improved infrastructure maintenance, load management, delivery and revenue management choices. Increasing pressure is also exerted on all businesses to take environmental considerations on board in all their operations. Such pressure emanates from a variety of sources: consumers, competitors, pressure groups and local communities. The IERE are proud to be partners with the PIESA whose members' have a broad knowledge of the African challenges. The IERE and PIESA are well placed to build a strong partnership to enhance the technological knowledge base and to engender enthusiasm that will stimulate interest in the topics to be discussed.

Finally, my deepest thanks and appreciation to PIESA for co-hosting and organizing this South Africa Forum.



Gregory Tosen

IERE Chair PIESA, South Africa





Message from PIESA Chair

The Power Institute for East and Southern Africa ('PIESA") is delighted and excited to co-host with IERE, the 2019 General Meeting and PIESA-IERE South Africa Forum ("Forum") to be held at the magnificent Sun City Resort located in the North West Province in the Republic of South Africa from October 28-31, 2019.

PIESA is a voluntary regional power utility association established on 28 February 1998. We aim 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.

Pursuant to giving effect to the above PIESA strives to be the catalyst for sustainable regional technological cooperation in expanding the electricity distribution industry for regional growth and development by:

- Encouraging participation by all regional electricity distributors and supporting industries;
- Compiling, optimising and maintaining integrated information systems for technology related to the distribution of electricity including technical equipment specifications and codes of practice that are appropriate for the regional environment;
- Providing a mechanism for continuously capturing the experiences of members in order to improve efficiency;
- Encouraging the use of local resources and manufacture of equipment for use in the distribution industry;
- Promoting applied research in areas that are relevant to the effective performance of members;
- Fostering a culture of technology transfer and skills development among the members;
- Developing strategic alliances and partnerships with other related organisations involved in or with the electricity distribution industry.

In a nutshell, 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.

It's common knowledge that access to electricity has been a serious challenge in Africa and still continues to be a serious challenge. As reported previously 600 million Africans are not connected to an electrical network. Businesses in most countries in Africa cite access to electricity amongst the two most severe constraints on their operations and business.

The ability and capability of PIESA member countries to raise adequate funding to rollout new and much needed infrastructure is still a serious problem. Backlogs in respect of maintenance and refurbishment of essential power supply and power delivery infrastructure still continue to plague the sector that PIESA operates in.

We note that the theme, "Electricity & the 4th Industrial Revolution – an Africa perspective" chosen for the Forum will generate excellent papers, presentations and discussions that will contribute to addressing the challenges as alluded to in the aforementioned.

The electricity utility sector in particular is also being and still going to be impacted by the fourth industrial revolution ("4IR") in the years ahead so much so that the majority of them will have to





rethink their business models to remain inter alia viable. Unlike the first (1IR), second (2IR) and third (3IR) industrial revolutions the impact of the fourth industrial revolution (4IR) is going to be astronomical or exponential to say the least. PIESA will be focusing going forward on 4IR emerging technologies to especially stimulate and accelerate electrification in PIESA member countries for growth and development.

We also want to acknowledge and recognise the Top 20 "emerging technologies" and Top 5 "fringe technologies" as identified by IERE in its excellent "IERE TECHNOLOGY FORESIGHT 2020 REPORT". We will factor the findings of this Report into PIESA's strategies and planning where possible

For the benefit of our international visitors and delegates, history was made in 1979 when Sun City was opened to become the best holiday resort in South Africa, and for good reason. Home to the Valley of Waves and sprawled along the border of the Pilanesberg National Park, Sun City Resort enjoys the fine distinction of being the only surf-and-safari destination within a two-hour drive of landlocked Johannesburg. Sun City's selection of boardrooms and breakaway conference rooms provide a unique environment to host world class conferences, workshops and more. Delegates can expect state-of-the-art technology, ultra-modern amenities, and world-class facilities when attending the Forum.

In conclusion I want to on behalf of the membership of PIESA and myself welcome all delegates to The 2019 General Meeting and PIESA-IERE South Africa Forum. We trust and hope that you will enjoy your stay at Sun City and find the networking and information derived at the Forum value adding. I look forward to personally meeting each delegate at the Forum.



ENG. BUKHOSI SISO BSc (Elect), MSc, MBA, Ceng, FzweIE, MIET, MistLM CHAIRPERSON OF THE PIESA BOARD







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)

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: 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
- 4. Big Data, Cloud Computing and M2M communication.
- 5. Industrial Internet of Things ("IIOT")

Session 3

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

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: 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





Program:

Session structure, speakers and timetable are subject to change.

Welcome Reception

Monday, October 28, 2019
Sun City Convention Centre, Seers Court

18:00 - Registration

18:30 - 20:30 Welcome Reception

The 2019 General Meeting and PIESA-IERE South Africa Forum

- Day 1 -

Tuesday, October 29, 2019
Sun City Convention Centre, Warriors Hall

08:30 – 09:00 Registration

Opening Session:

09:00 – 09:15 O-1 Opening Address

Gregory Tosen (IERE Chair)

09:15 – 09:30 O-2 Welcome Address

Details to be announced

Keynote Addresses

09:30 - 10:00 K-1 Details to be announced

10:00 - 10:30 K-2 Details to be announced

10:30 - 11:00 Coffee Break

General Session

11:00 - 11:20 G-1 The report of IERE activities by IERE central office

11:20 - 11:40 G-2 The report of TIS activities by PIESA

11:40 – 13:00 <u>Lunch break</u>





$Session \ 1: \textbf{Evolving 4IR technologies and its effect on the customer}$

Chair	person:	TBD

13:00 - 13:25 S1-1	'An Instance Segmentation and Depth Perception based Obstacle Detection and Distance Measurement Method on Substation Patrol Robot' PhD. Hongsheng Xu (NARI Group Corporation, China)
13:25 - 13:50 S1-2	'The Effect of Disruptive Technologies and Its Moderating Factors on Power Utility Firm' Dr. Zainal Arifin (Vice President, Technology Development and Standardization, PT. PLN, Indonesia)
13:50 - 14:15 S1-3	'Application and Development of Artificial Intelligence in Power Equipment State Evaluation and Maintenance' Mr. Qiao Ji (Engineer, Artificial Intelligence Application Research Department, CEPRI, China)
14:15 - 14:40 S1-4	'Reduction of Health Care Costs Through the Implementation of an Integrated Electronic Health Record Systems in South African Public Hospitals: Cost Benefit Analysis' Kenneth B Magodielo (Budget Analist, National Treasury, South Africa)
14:40 – 15:05 S1-5	'Readiness Index for Indonesian Power Plant toward Industry 4.0' Mr. Harry Indrawan (Manager, R&D Energy and Power Plant, PT. PLN, Indonesia)
15:05 - 15:30 S1-6	'Artificial Intelligence for the Detection of Electricity Theft and Irregular Power Usage in the African Electricity market' Keith Katyora (Electrical Engineer, Zingce Technology Group, South Africa)
15:30 - 16:00	<u>Coffee Break</u>





Session 2 : Asset Management – let's get smart about it

Chair person: TBD	
16:00 - 16:25 S2-1	'Asset-Management 4.0' Hans-Jürgen Behnke (POA External Operation & Maintenance, Business Development & Sales, RWE TI, Germany)
16:25 - 16:50 S2-2	'A Real-world dataset for automatic visual diagnosis of power transmission lines' Min-Hee Choi (Senior Researcher, Digital Solution Lab., KEPCO RI, Korea)
16:50 - 17:15 S2-3	'Application of RFID System for Managing Repair Parts of Underground Power Cables and Accessories' Mr. Yuya Manabe (Researcher, Electric Power R&D Center, Chubu EPCO, Japan)
17:15 - 17:40 S2-4	'4IR technologies Application on KEPCO Power Distribution equipment maintenance' Gi-Dae Oh (Senior Researcher, Smart Power Distribution Laboratory, KEPCO RI, Korea)
17:40 - 18:05 S2-5	'High Efficiency Status Evaluation for Main Equipments based on Cyber Physical Systems in Distribution Network' Mr. Keyan Liu (Senior Researcher, Power Distribution Department, CEPRI, China)
18:05 - 18:30 S2-6	'Smart Utility Maturity Framework' Ir. Pershanta Kumar (Senior Engineer, Asset Management Department, TNB, Malaysia)
19:00 – 21:30	Official Dinner





The 2019 General Meeting and PIESA-IERE South Africa Forum

- Day 2 -

Wednesday, October 30, 2019 Sun City Convention Centre, Warriors Hall

Session 3: Distributed Renewable Energy Technologies: Are we ready?

Chair person: TBD	
08:00 – 08:25 S3-1	'Secondary battery energy storage system enabling use of renewable energy to realize a zero CO ₂ emission society' Dr. Tomohiko Ikeya (Associate Vice President, Materials Science Research Laboratory, CRIEPI, Japan)
08:25 – 08:50 S3-2	'The future of infrastructure: Challenges and opportunities for utility companies' Dr. Felix Cebulla (Senior Expert, Corporate Technology, innogy SE, Germany)
08:50 – 09:15 S3-3	'Development a System Dynamic Model for Utilities Revenue Evaluation under Distributed Energy Resources' Dr. Desmond Ighravwe (University of Johannesburg, South Africa)
09:15 – 09:40 S3-4	'The Implementation of Grid Interconnection Study of Renewable Energy in the Distribution Grid to ensure Safe Grid Integration: Case Study of PV Grid Connected in Indonesia' Dimas Bangun Fiddiansyah (Management Asset in T&D system, Operation Division of Region East Java, Bali, PT. PLN, Indonesia)
09:40 – 10:05 S3-5	'Status and Future of Renewable Energy Technology Development and Application in KEPCO' Mr. Seong Jegarl (Director, Renewable Energy Research Group, KEPCO RI, Korea)
10:05 – 10:35	Coffee Break

Session 4: Advanced distribution automation in the 4IR era

Chair person: TBD





10:35 – 11:00 S4-1	'Plant simulation, visualization and control platform based on OPC and Simatic WinCC' Rotimi Agbebi (Specilaist Engineer (Control and Automation), Siemens, South Africa)
11:00 – 11:25 S4-2	'Improvement of power system analysis tools (CPAT) for planning, operation and control/protection studies under a large penetration of photovoltaic generations' Mr. Hideo Koseki (Senior Research Scientist, System Engineering Research Laboratory, CRIEPI, Japan)
11:25 – 11:50 S4-3	'The Implementation of Smart Asset Management System to Monitor the Health Index of Power Distribution Assets: Case Study of PLN's EAM in Indonesia' Dimas Bangun Fiddiansyah (Management Asset in T&D system, Operation Division of Region East Java, Bali, PT. PLN, Indonesia)
11:50 – 12:15 S4-4	'Smart Energy Market Infrastructure for Distribution' Ms. Komal Deep Kaur Hardial Singh (Senior Engineer, Asset Management Department, TNB, Malaysia)
12:15 – 12:40 S4-5	'Analysis of necessity and effect of generator's flexible operation with increasing renewable energy' Baekkyeong Ko (Senior researcher, Power grid group, KEPCO RI, Korea)
12:40 – 14:00	Lunch break

$Session\ 5: \textbf{4IR's\ impact\ on\ revenue\ collection\ and\ non-technical\ losses}$

Chair person: TBD	
14:00 – 14:25 S5-1	'The Impact of the 4IR on the electricity distribution utility business' <i>Vally Padayachee</i> (Executive Officer, PIESA, South Africa)
14:25 – 14:50 S5-2	'Security Testing for Preventing Backdoor Threat in Smart meter Implementation In Indonesia' Ms. Astri Kartika El Nur (IT Strategy Manager, PT. PLN, Indonesia)





14:50 – 15:15 S5-3	'Carbon Market Risk Analysis & Defense based on Hybrid Simulation - a Perspective from Cyber Physical Social Systems in Energy' PhD. Jie Huang (Deputy Manager, R&D Section, NARI Group Corporation, China)
15:15 – 15:45	Coffee Break
15:45 – 16:10 S5-4	'Modelling and Analysis of a competitive Electricity Market for South Africa (and the rest of the continent)' Keith Katyora (University of Johannesburg, South Africa)
16:10 – 16:35 S5-5	'Incorporating Embedded Generation onto Municipal Networks' Poonam Lutchman (Solution Architect - Digital Power Solutions, South Africa)

Closing Remarks

16:35 - 16:40	TBD (from PIESA, South Africa)
16:40 - 16:45	Dr. Takao Watanabe (Secretary General, IERE Central Office)





Safari Tour (optional) - Day 3 -

Thursday, October 31, 2019
Sun City Convention Centre, Pilanesberg National Park

Around 06:30 Departure at Suncity Hotel Around 10:00 Return to Suncity Hotel

- Time schedule may be changed.
- Please register and finish payment by September 27 with Forum registration

Reference WEBSITE from Mankwe GAME TRACKERS

https://gametrackers.activitar.com/services/48?adults=1&children=0&date=2016-05-21

Activity Description

Gametrackers invites you to discover the awe-inspiring beauty and serenity of the Pilanesberg National Park. Embark on one of our 3 hour Scheduled Game Drives with a registered field guide who will convey extensive knowledge on the park and its inhabitants. These game drives will be conducted in 25-seater open vehicles with other guests. Pilanesberg National Park is Malaria free and accommodates virtually every mammal of Southern Africa including the "Big Five" (namely Lion, Leopard, Rhino, Elephant & Buffalo)

Arrangements

Duration 3 hours

When Seven days a week, all year round.

Where Gametrackers Desk - situated in the Welcome Centre at Sun City Resort.

Weather No weather restrictions. Activity will always go out even if it rains.

What to Wear Comfortable outdoor clothing. Always bring a jacket/jersey along, and for the cooler winter months (May to August) a beanie/scarf and gloves also recommended.

Things to Bring We recommend that you bring beverages, binoculars and camera.

Guests or Spectators All guests to be at the departure point, 15 minutes prior to the scheduled departure time.

Inclusions

This service includes a guided tour through the Pilanesberg National Park with a registered field guide. Duration of the Game Drive: ±3 hours

Exclusions

Beverages are excluded from this service. Guests are welcome to bring their own beverages.









Call for Papers(closed)

<< 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.

https://www.iere.jp/events/forum/2019-southafrica/forspeakers.html

- 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]

Items	Format No.	Deadline	То:
Registration Form	1	September 27, 2019	register(at)iere.jp [Please substitute (at) with @]
Visa Form (If necessary)	5	September 27, 2019 (It takes a few weeks to issue)	Ditto
Registration Fee	_	September 27, 2019	Please refer to Next Page
Safari Tour Fee [optional]	_	September 27, 2019	Ditto

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

URL: https://www.iere.jp/events/forum/2019-southafrica/register.html

For Speakers

Items	Format No.	Deadline	То:
Abstract	2	July 15, 2019	
Speaker's Information	3	October 4, 2019	register(at)iere.jp
Copyright Permission	4	October 4, 2019	[Please substitute (at) with @.]
Presentation Slides (PowerPoint file)	_	October 4, 2019	

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

URL: https://www.iere.jp/events/forum/2019-southafrica/forspeakers.html

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





Registration

- IERE Members & Non-Members other than Africa -

(a) On-line Registration

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 -

Deadline: August 31, 2019

(a) Paying in South African RANDS (R)

URL: https://express.vdw.co.za/pay/?id=ea7740fe79cde87213c15a9802ac45b3c184d900

(b) Paying in US DOLLARS(US\$)

URL: https://express.vdw.co.za/pay/?id=de467a162f47eff434ba780bfb07d45f765a1a73

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.

IERE members: US\$ 800.-

Non-Members other than Africa: US\$ 950.-

Academic participants: US\$ 550.-

PIESA members: US\$ 600.-

Non-Members from Africa: US\$ 950.-

Recommended options

Safari Tour(optional): US\$ 50.-





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

(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

- 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

^{*} Remittance charge, Lifting charge, Correspondent charge and other charges should be paid <u>by participants.</u>





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

[Inhlobo Tours & Services]

http://www.inhlobotours.com/

 $Mail: \underline{info@inhlobotours.com}$

Mobile +27 76 044 7621 Tel +27 12 700 3011

246 Pretorious Street, Office 406 Protea Towers, Pretoria 0002





Conference Venue & Accommodations

Conference Venue

Sun City Convention 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/kxx4RVyxdC2SVjTf9





Accommodations

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

Location: Sun City Resort, 0316, North West Province, South Africa

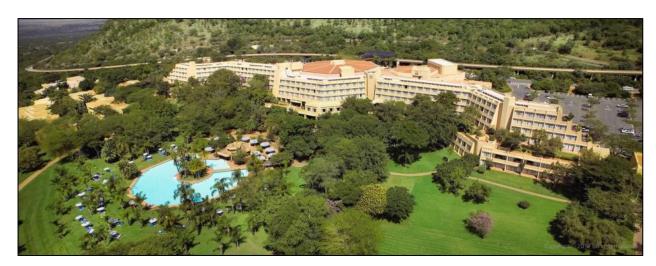
Website: http://www.suninternational.com/sun-city/

Discounted group rates are available.

Please send Room Reservation Form directly to Sun City Resort as below.

URL: https://www.iere.jp/events/forum/2019-southafrica/DLfiles/PIESA2019BookingForm.pdf

- 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



CASCADES Hotel in Sun City Resort





Format 1

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 Of	fice: register(at)ier	e.jp [Please su	bstitute (at) with @] / Fax: +81-3-3488-5100	
1. Name	□ Prof. □ Dr. □ Mr. □ Ms. □ 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	☐ Yes <u>Title:</u> ☐ No			
7. Registration Fee [October 28-31]	[Participants including speakers should pay registration fees.] □ USD 800 : IERE Member □ USD 950 : Non-IERE Member □ USD 550 : Academia			
8. Welcome Reception attendance [October 28] not Mandatory	☐ Yes (Included in Registration Fee) Number of Accompanying Person if you have: person(s) (add USD 60 per person) ☐ No			
9. Official Dinner attendance [October 29] not Mandatory	☐ Yes (Included in Registration Fee) Number of Accompanying Person if you have: person(s) (add USD 60 per person) ☐ No			
10. Safari Tour (Optional) [October 31]	☐ Yes (USD 50) Number of Accompanying Person if you have: person(s) (add USD 50 per person) ☐ No			
11. Payment Amount	Total: USD			
12. Payment Method [to be completed by September 27]	☐ Credit Card: ☐ Bank Transfe * IERE Central Offi	r	re.jp/Payment/paypal_19GM.html	
13. Invitation Letter for Visa			r Visa application. Central Office by e-mail by September 27, 2019.	
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.





Format 5

Invitation Letter for Visa

If participants need an invitation letter, please type **X** 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.					
* 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 purposes.					
Name on passport	First Name:	Middle Name:	Family Name:		
Gender	☐ Male ☐ Female				
Nationality					
Date of birth					
Passport No.					
Occupation					
Company/ Organization etc.					
Expected date of entry					
Duration of stay					
Expected date of departure					
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 July 21, 2019)

Australia	CS Energy Ltd.	CSIRO	
Canada	Powertech Labs Inc.		
China	CEPRI	GPG	NARI
France	Enedis	ENGIE	
Germany	EnBW	innogy SE	RWE TI
Hong Kong SAR	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	Hyundai Electric	KEPCO	KERI
	KOEN	KOMIPO	KOSPO
	KOWEPO	LSIS	
Malaysia	TNB		
Mexico	INEEL	Prolec GE	
Philippines	APC	MERALCO	
Singapore	SPPG		
South Africa	Eskom	PIESA	
Spain	NATURGY	REE	
Taiwan	TPC		
Thailand	EURC*		
U.S.A.	EPRI	SwRI	

^{*:} 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/

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: September 3, 2019