

# Information on Conference Program & Exhibition

Host Utility:



Platinum Partner:



Key Partners:



Partners:



Over its nearly 25 year history, the INMR WORLD CONGRESS has become one of the most respected and well-attended international events in the field of power transmission & distribution. Held every two years since 1995, this joint 3-day Conference & Exhibition focuses on today's important issues in overhead line and substation design as well as in specification, application and maintenance of key network components. Past events have been held across the globe - from Europe to North America, from Asia to South America.

This upcoming event, to be held in Tucson, Arizona, USA from Oct. 20 to 23, 2019, will offer about 100 practical technical presentations by world leading experts in the fields of outdoor insulation, surge protection, line and substation design and also maintenance and testing. Speakers include senior engineering staff from electric utilities, experts from manufacturers of MV and HV equipment and components, university professors and researchers and specialists in high voltage and high power laboratory testing.

For attendees, the intensive focus on network components that most often determine reliability, availability and operating costs will offer important benefits such as:

- Becoming better acquainted with the latest technologies and service experience for insulators, surge arresters, bushings & cable accessories;
- Learning about recent advances in inspection & maintenance practices for these components to monitor condition in the field and detect incipient failures;
- Hearing solutions developed by engineers at other utilities worldwide to deal with a range of service problems or other situations relating to these components;
- Better understanding emerging international standards and practices that govern specification and testing of these critical components.

In parallel with the conference, there will also be a PRODUCT & TECHNOLOGY EXHIBITION featuring over 60 world leaders in these fields. This will be an opportunity to meet and discuss needs with experts in all these fields while also seeing some of the latest products and designs.

**See you in Tucson!**





**Mazana Armstrong**  
Specialist Engineer & Team Lead, BC Hydro, Canada  
**Methodology & Mitigation of Lightning Induced Arcing to Pipeline Hazard**



**Samuel Arturo Asto Soto**  
Transmission Line Coordinator, Red de Energía de Perú, (Power Grid of Peru), Peru  
**Performance of RTV-Coated Glass Insulators in Zones of High Salt Contamination**



**Steve Aubertin**  
Managing Director, Goulden Reports, United Kingdom  
**Funding the Next Global T&D Investment Cycle 2020-2040: How Much It Will Cost**



**R. Allen Bernstorff**  
Sr. Principal Engineer, Hubbell Power Systems, United States  
**Braced Line Post Testing & Loading Considerations**



**Nadew A. Belda**  
Innovation Engineer, KEMA Laboratories, DNV GL Energy, The Netherlands  
**Metal-Oxide Surge Arresters for HVDC Circuit Breaker Applications**



**Bryan Beske**  
Consulting Engineer, American Transmission Company, United States  
**Line Arrester Installations on ATC System: What Was Done Right & Further Improvements**



**Isaac Bohlken**  
Engineering & Technology Manager - Hardware, Pfisterer Lapp, United States  
**Design Rules for Long-Term Reliability of Composite Insulator Strings**



**Fabio Bologna**  
Sr. Program Manager, Electric Power Research Institute (EPRI), United States  
**Mechanical Testing of Connection Leads for Transmission Line Surge Arresters**



**Paolo Cardano**  
Sr. Expert for Bushings, GE Grid, Italy  
**External Insulation Alternatives for EHV & UHV Bushings**



**A. J. (Tony) Carreira**  
President, K-Line Insulators, Canada  
**Thermally Diffused Galvanizing & Application to Insulators**



**William A. Chisholm**  
Consultant, Canada  
**1. Arrester Protection of Lower Voltage Circuits on Multi-Voltage Towers: Issues & Opportunities**  
**2. Dust & Sea-Salt Pollution Mapping: Satellite vs. Ground-Truth Results**



**Lukasz Chmura**  
Product Development Engineer, Royal Lovink Enertech, the Netherlands  
**Future Challenges for Cable Accessories in MV Networks**



**Doug Craigen**  
Team Leader, Benchmark & Testing, Integrated Engineering Software, Canada  
**Efficient Simulation of Electric Line Parameters for Cables**



**Héctor de Santos**  
R&D Engineer, La Granja Insulators, Spain  
**Monitoring Performance of Outdoor Insulators in Polluted Environments**



**Adam Dienes**  
Energost, Hungary  
**Insulator Diagnostics Using Drones (UAVs)**



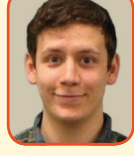
**Ron Duckstein**  
Sales Director, Sediver, United States  
**Evaluation of Field Returned Insulators from U.S. Grid Through Laboratory Tests**



**Eric Euvrard**  
President, RHM International, United States  
**Developments in RIS Bushing Technology**



**Prof. Masoud Farzaneh**  
Professor Emeritus, Université de Québec à Chicoutimi (UQAC), Canada  
**Overview of Impact & Mitigation of Icing on Power Network Equipment**



**Thomas Galloway**  
Engineer/Scientist, Electric Power Research Institute (EPRI), United States  
**EPRI Sensor Suite: A Step Towards an Intelligent Electrical Power System**



**Jean-Marie George**  
Scientific Director, Sediver, France  
**1. Specifying RTV Silicone Coatings for Overhead Transmission Lines**  
**2. Digital Solution for Transmission Line Risk Assessment**



**Tony Gillespie**  
Power Engineering Consultant, Australia  
**Lessons from 20 Years' Experience with Composite Insulators on Transmission Lines in Queensland**



**Giovanni Giobbe**  
Design & Technical Dept., EB Rebosio/Gruppo Bonomi, Italy  
**Application of Interphase Spacers to Transmission Systems**



**Florent Giraudet**  
Business Development, Siemens AG, Germany  
**Various Benefits for Line Surge Arrester Application & Advantages of Externally Gapped Line Arresters**



**Hansjoerg Gramespacher**  
Director & Consultant, ec4ac Engineering, Switzerland  
**1. Requirements & Challenges in Technology and Application of HV Cable Joints**

**2. Reliability of HVDC Cable Joints: Today & Future Challenges**



**Ruben Grund**  
Head of R&D and Product Management, Cable Accessories, Pfisterer, Germany  
**Latest Developments in High Voltage Cable Accessories**



**Cristian Gutiérrez Aguirre**  
Transmission Line Specialist (Corpoelec), Venezuela  
**Brittle Fracture Failure of Polymeric Insulator on 400 kV Transmission Line**



**Igor Gutman**  
Sr. Expert, Independent Insulation Group, Sweden  
**1. Rod to Housing Adhesion in Composite Insulators: Practical Evaluation in Collaboration with Utilities**  
**2. Software for Line Design & Operation: Case Studies**



**Prof. Klaus-Dieter Haim**  
Professor, Electrical Engineering, Zittau-Görlitz University of Applied Sciences, Germany  
**Cable Accessory Technologies: Current Situation & Developments to Watch**



**Prof. He Jinliang**  
Chair of High Voltage & Insulation Technology Research Institute, Tsinghua University, China  
**Development & Application of Polymeric Surge Arresters for Transmission Lines in China**



**Falk Hardt**  
Head, Product Portfolio & Cable Accessory Development, Pfisterer Holding, Germany  
**Shearbolt Connectors for LV/MV Underground Power Cables: Reliability & Failure Modes**



**Ramiro Hernández-Corona**  
Research Engineer, INEEL, Instituto Nacional de Electricidad y Energías Limpias, Mexico  
**Effect of Cooling Towers on External Insulation at Substations**



**Eduardo Hilsdorf**  
Sales Director, PPC Santana, Brazil  
**Hybrid Insulators for Distribution Lines: Advantages & Application Experience**



**Prof. Volker Hinrichsen**  
Professor & Head of HV Laboratory, Technical University of Darmstadt, Germany  
**Arrester Technology Today: Lessons Learned & Developments to Watch**



**Peter Hock**  
Research Associate, TU Darmstadt, Germany  
**Metal-Oxide Surge Arresters for HVDC Circuit Breaker Applications**



**Martin Hughes**  
Sr. Technical Leader, Electric Power Research Institute (EPRI), United States  
**Mechanical Testing of Connection Leads for Transmission Line Surge Arresters**



**Lars Jonsson**  
Senior Specialist, ABB, Sweden  
**Impact of Bio-fouling on Performance of Outdoor Bushing Insulation**



**Aram Khalil-Pour**  
Director of Engineering & System Assets, FortisBC, Canada  
**Session Chairman**



**Detlef Klingberg**  
Technical Manager, Application Engineering Energy, Wacker Chemical Corp., United States  
**Interesting Aspects of Special Cables with Silicones**



**Prof. Stefan Kornhuber**  
Professor, University of Applied Sciences Zittau/Görlitz, Germany  
**Long-Term Experience with Cable Joints Under Water Stresses**



**Jan Lachman**  
Director, EGU-HV Laboratory, Czech Republic  
**Lessons from 25 Years Experience Testing Polymeric Insulators**



**Jens Lambrecht**  
Manager, Application Engineering, Wacker Chemie, Germany  
**Silicone Gel: More Than a Gap Filler**



**John L. Lauletta**  
CEO, Exacter, United States  
**Using Grid Analytics to Evaluate Lightning Protection**



**Darin Lawton**  
Lead Engineer, Burns & McDonnell, United States  
**Sheath Voltage Limiter Sizing for Underground Transmission & Distribution Lines**



**LEE Yanmin**  
Chairman, Shenzhen Square Silicone, China  
**Applications for Liquid Silicone Rubber (LSR) in the Electrical Power Industry**



**Paul Leufkens**  
President, Power Projects Leufkens, United States  
**1. Damped AC for Commissioning & Diagnostic Testing of HV Cable Circuits**  
**2. Developments to Watch in HV Surge Arresters**



**Jody Levine**  
Asset Manager, Transmission Stations, Hydro One Networks, Canada  
**Experience Applying Surge Protection at Hydro One**



**Daniel Loder**  
Materials Research Engineer, Israel Electric Corp., Israel  
**Research Findings Linking Corona to Brittle Fracture Failure**



**Patrick Maloney**  
Chief Engineer, PPC Insulators, United States  
**Porcelain Insulators Under Cyclic Loading**



**Sebastian Marra**  
Engineering Manager, K-Line Insulators, Canada  
**Case Study for Application of 400 kV Interphase Spacers**



**Daniel McCullough**  
Principal Engineer, San Diego Gas & Electric Co., United States  
**Optimizing Insulator Selection with Regard to Performance, Installation, Stocking & Maintenance**



**Alison Meredith**  
Manager, Engineering (Electric), FortisBC, Canada  
**Replacing Insulators on Ageing Long Span Lake Crossing**



**Eric Moal**  
Electrical & Mechanical Designer, Reinhausen France SAS, France  
**Pollution Performance of Composite Hollow Core Insulators with HTV/LSR Housings**



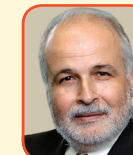
**Ed Niedospial**  
Sr. Product Manager, Transmission Insulators, MacLean Power Systems, United States  
**1. Longitudinal Loading: Fact Vs. Myth**  
**2. Maximizing & Validating Ultimate Capacity in High Strength Applications**  
**3. Manufacturing Quality of Toughened Glass Insulators**



**Marco Nosilati**  
Technology Leader, GE Grid Solutions, Italy  
**Optimized Selection of Post Insulators for HVDC Disconnectors & Other Substation Applications**



**Prof. Derek Oliver**  
Director, Manitoba Institute for Materials, University of Manitoba, Canada  
**Insulator Performance & Characteristics Required of Innovative Materials from Renewable Resources**



**Konstantin Papailiou**  
Past Chairman, CIGRE SC Overhead Lines, Switzerland  
**Keynote Address**



**Andrew Phillips**

Vice President, EPRI, United States

**Development of Small Scale Test to Verify Corona Performance of Polymeric Insulators****Alberto Pigni**

T&amp;D Consultant, Italy

**Optimal Insulator Type & Dimensioning in Harsh Service Environments****Christian Pons**

Research Engineer, Électricité de France (EDF) Lab Les Renardières, France

**Operating a Test Station in a Polluted Environment****Milan Radosavljevic**

Sr. Engineer &amp; Asset Manager, Svenska Kraftnät (Swedish Transmission System Operator), Sweden

**Selection of Optimal Outdoor Insulation for Refurbishment of 400 kV AC Substation under Coastal Pollution****Tim Rastall**

Senior Electrical Engineer, Anspec Power, United Kingdom

**Application of Surge Arresters in MV/HV Capacitor Bank Protection****Bastian Robben**

Design Engineer/R&amp;D Project Manager, Siemens AG, Germany

**Innovative Compact Line Design: Reducing Clearances by Integrating Externally Gapped Line Arresters on HV Transmission Lines****Robert Ross**

Professor, Technical University of Delft &amp; Asset Management Strategist for TenneT, The Netherlands

**Asset Replacement Strategies in Ageing Grids: Maintenance vs. Condition-Based****Markku Ruokanen**

Group R&amp;D Director, PPC Insulators, Austria

**Adding Intelligence to Ceramic Insulators****Dennis Schlender**

Principal, DBS Energy Services, Canada

**Practical Field Inspection & Condition Assessment of Transmission Insulators****John M. Schneider**

Principal, Complex Energy Solutions, United States

**Development of 765 kV Externally Gapped Lightning Arresters****John Schonewolf**

Senior Design Engineer, Hubbell Power Systems, United States

1. Braced Line Post Testing & Loading Considerations
2. Advantages of Enhanced Silicone Polymer for Distribution Arresters
3. Monitoring Interior Temperature to Determine Health of Substation Arresters

**Jens Seifert**

Senior Expert, Reinhausen Power Composites, Germany

1. Application of Station Posts
2. Innovative Applications & Development for Composite Hollow Core Insulators

**Timothy Shaw**

Project Manager, Electric Power Research Institute (EPRI), United States

**Development of Small Scale Test to Verify Corona Performance of Polymeric Insulators****Glenn Stapleton**

Principal Engineer, Transmission Lines &amp; Cables, Powerlink Queensland, Australia

**Lessons from 20 Years' Experience with Composite Insulators on Transmission Lines in Queensland****Karl Emil Steenholt-Eliasson**

Power Lines Engineer, Energinet, Denmark

**Transmission Structures for Reduced Cost & Increased Public Acceptance****Guoyan Sun**

Scientific Engineer, Brugg Cables, Switzerland

**Designing & Optimizing HV Cables & Accessories to Withstand High Short-Circuit Current Faults****Andrei Szabo**

Marketing Manager, Wacker Chemie, Germany

**Silicones in T&D: Advantages of This Versatile Material****Konstantinos Velitsikakis**

Sr. Consultant Insulation Coordination &amp; Team Leader, DNV GL Energy Advisory, The Netherlands

**Strategies for Effective Application of Line Surge Arresters on the 400 kV Overhead Network in Hong Kong****Uberto Vercellotti**

Testing &amp; Certification, CESI Group, Italy/Germany

**Experience from Long Duration Tests on Extruded Cable Systems up to 525 kV DC****Bas Verhoeven**

Director High Voltage Laboratory, Global Quality &amp; Innovation, KEMA Laboratories, The Netherlands

**Laboratory Experience in Type Testing Insulators & Cables****Chenyang Wang**

Transmission Line Design, Manitoba Hydro, Canada

**Optimizing Structure Design on 500 kV Line Using Transmission Line Arresters****Erika Willis**

Research Leader, Electric Power Research Institute (EPRI), United States

**Advanced Coatings for Insulators & Conductors: Overview of EPRI Research****Dan Windmar**

Vice President, STRI, Sweden

1. Cases of Non-Standardized Testing
2. Progress on Revision of IEC 60383

**Jonathan Woodworth**

Principal, ArresterWorks, United States

1. Overview of Progress on Harmonization of IEC & IEEE Arrester Standards
2. Best Practice in Lightning Protection of Distribution Lines

**Raouf Znaidi**

T&amp;D Consultant, Tunisia

**Field & Laboratory Assessment of RTV Coated Insulators in Harsh Desert Environments****James Brady**

Level-III Certified Infrared Thermographer, Level-I UVigrapher, Brady Infrared Inspections, United States

**Conducting Corona & Infrared Inspections of Power Lines****Dates & Registration**

The 2019 WORLD CONGRESS will start on Monday, Oct. 21, 2019 at 08:00 and conclude on Wednesday, Oct. 23 at 18:00. Registration and pick-up of badges as well as Conference materials will take place on Sunday, Oct. 20 between 13:00 and 19:00 and continue on Monday starting from 07:00.

**Ground Transport to Westin La Paloma**

Attendees arriving at Phoenix Sky Harbor International Airport and at Tucson International Airport on either Saturday, Oct. 19 or Sunday Oct. 20 will be offered complimentary shuttle bus service to the Westin La Paloma. INMR hospitality staff will welcome attendees and direct them to buses that will depart on a regular schedule.

**Venue & Hotel**

The 2019 WORLD CONGRESS will take place at the large Congress Center of the Westin La Paloma Resort & Spa. Special arrangements have been made for attendees to this event to reserve hotel rooms at a significantly reduced daily rate. Those planning to attend are urged to make hotel reservations as soon as possible to ensure availability of rooms.

**Reduced Rates at Westin La Paloma Resort & Spa***(for registered attendees only)**Single or double occupancy:*

US\$ 129. + local tax (rate applies 3 days before and 3 days after this event)

Once this hotel becomes fully booked, a number of alternative hotels in the area will be recommended.

To reserve rooms, please visit: [www.inmrworldcongress.com/reserve-hotel/](http://www.inmrworldcongress.com/reserve-hotel/)

Subject to possible modification\*

**Registration Fee per Person**

(includes access to all conference sessions, access to Exhibition, technical site visits, copy of PROCEEDINGS, all lunches, all coffee breaks & invitation to two evening receptions):

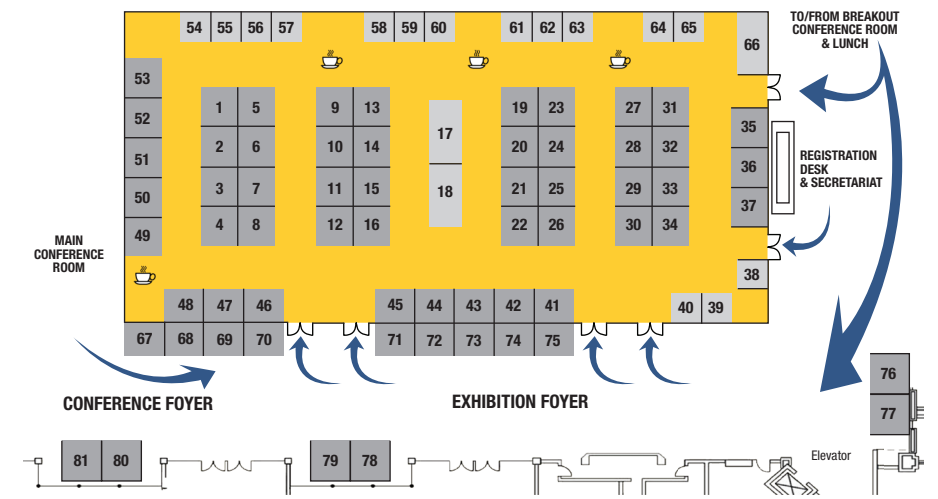
**General Registration****US\$ 895****Group Registration\*****US\$ 795**

(min. 3 people from same company register & pay at same time)

**Special Reduced Registration Packages for Electric Power Utilities****Utility Registration****US\$ 695****Group Utility Registration\*****US\$ 595**

\*(min. 3 people from same utility register & pay at same time)

To register, please visit: [www.inmrworldcongress.com/register-to-attend/](http://www.inmrworldcongress.com/register-to-attend/)

**PRODUCT & TECHNOLOGY EXHIBITION\***

EXHIBITOR	SPACE #	EXHIBITOR	SPACE #
ABB Components	26	NARI Group Corporation	70
Agni Fiber Boards	64	Ofil	8
BPG International	58 & 59	Pfisterer Holding	51
Brugg Cables	35	Pioneer Technology Solutions	71
CESI	39 & 40	PPC Insulators	9 & 10
CIGRE	76	Polyone - Glasforms Advanced Composites	37
CSL Silicones	-	Reinhausen Power Composites	43 & 44
Dalian Sunrise Hardware	36	RHM International	6
Dekuma Rubber & Plastic Technology (Dongguan)	4	Saver	23 & 24
Desma Elastomertechnik	27 & 28	Sediver	19 & 20
EDF Lab Les Renardières	50	Shaanxi Taporel Electrical Insulation Technology	34
EGU HV Laboratory	45	Shenzhen Square Silicone	25
ElectroMagneticWorks (EMWorks)	75	Sichuan Yibin Global Group	3
Electric Power Research Institute (EPRI)	77	Siemens AG	31 & 32
EPRECSA USA	1	STRI	12
Eximprod Power Systems	49	TÜV Rheinland (Shanghai)	66
Global Insulator Group (GIG)	7	Ugur Turkyurt	41
Gruppo Bonomi/EB Rebosio	54 - 55 - 56	UMEK Group	33
Hebei Kangao	11	Uniflex Hydraulik	38
H-J Family of Companies	29	Uvirco Technologies	52 & 53
Hubbell Power Systems	17 & 18	Verfahrenstechnik Hübers	46
Huphen Fabricators	65	Victor Insulators	57
Integrated Engineering Software	2	Wacker Chemie	15 & 16
KEMA Laboratories	13	Wellwin Precision Mould	30
K-Line Insulators	47 & 48	Xi'an Gaoqiang Insulation Electric	42
La Granja Insulators	14	Yizumi Rubber Machinery	61 - 62 - 63
MacLean Power Systems	21 & 22	Zibo Taiguang Electrical Equipment	5
Nanju Polymer Material	60		