Conference Overview

Continuing to build on the success of the 2016 conference, CEATI’s Station Equipment Asset Management Interest Group (SEAM) participants want to further explore areas of innovation in topics related to development for future stations and ongoing maintenance.

Technological developments in information technology, automation and design improvements raise exciting possibilities and opportunities for a reconfigured electrical grid, enabling more effective monitoring and maintenance techniques, while ensuring reliability of supply, sustainability of operations and affordability of electric service for customers. New station designs must now consider interoperability and monitoring capability to fully utilize these new technologies and associated telecommunications, information technology, security systems and infrastructure to enable smarter, more efficient and cost effective operation of station facilities.

Topics for Discussion:

The Stations interest group promotes and facilitates communication and collaboration on topics associated with optimizing life cycle costs related to electrical utility station equipment and apparatus. Participants are interested in technological advancements and trends in station design, apparatus, construction and maintenance techniques, as well as the changing requirements of stakeholders, regulators, and customers associated with electric utilities. This conference will provide an open forum for information exchange and deliberation, with a focus on technical presentations, case studies, and the sharing of ideas and experiences for the benefit of the industry.

Topics include:

- Futuristic View
- Security
- Regulatory & Standards
- Station Materials, Design and Techniques
- Environmental Conditions
- Evolution of Station Equipment

Who Should Attend

- Substation Managers
- Transmission Engineers
- Asset Managers
- Maintenance Supervisors
- Engineering Supervisors
- Project Managers
- Consultants
- Contractors
- Service Providers
- Vendors
- Equipment Manufacturers

Conference Goals

1. Learn from each other;
2. Provide information on innovative techniques, technologies, materials and designs being employed in development, maintenance and operation of future utility installations;
3. Identify opportunities for use of smart systems and methods to improve grid resiliency, meet stakeholder expectations and manage assets effectively;
4. Identify ways to ensure that the knowledge of the past is available for the future, and previous mistakes are not repeated;
5. The continuation of global communication, coordination, collaboration and advancement.

For more information, visit www.ceati.com/Spring2017
# MARCH 7th DAY 1 - STATIONS PROGRAM

## 12:00 - 1:15 Networking Lunch - Exhibition Hall

### SESSION 1: KEYNOTE / FUTURE VIEW

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:15 - 1:30</td>
<td>Welcome &amp; Introduction</td>
<td>Ken Kopechanski, CEATI International Inc.</td>
</tr>
<tr>
<td>1:30 - 2:00</td>
<td>Independent Electricity System Operator (IESO) Strategic Plan 2016-2020</td>
<td>Tam Wagner, Independent Electricity System Operator (IESO)</td>
</tr>
</tbody>
</table>

### SESSION 2: ENVIRONMENTAL CONDITIONS

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:00 - 2:30</td>
<td>Outage Cancelled, No Need to Re-Gasket - Latest Solutions in Online Leak Sealing of HV Apparatus</td>
<td>Liisa Colby, The Colt Group</td>
</tr>
<tr>
<td>2:30 - 3:00</td>
<td>Canadian Research on Geomagnetic Hazards to Power Systems</td>
<td>David Boteler, Natural Resources Canada</td>
</tr>
</tbody>
</table>

### 3:00 - 3:30 Networking Break - Exhibition Hall

### SESSION 3: EVOLUTION OF STATION EQUIPMENT

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:30 - 3:55</td>
<td>A Novel Built-In Insulation Condition Monitoring System Enabled by Dry Type Technologies</td>
<td>Robert Middleton, RHM International</td>
</tr>
<tr>
<td>4:25 - 4:55</td>
<td>Grid-Connected Energy Storage Overview</td>
<td>Steven Emiling, Mitsubishi Electric Power Products</td>
</tr>
</tbody>
</table>

### 5:15 - 7:00 Networking Reception - Exhibition Hall

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# MARCH 8th DAY 2 - STATIONS PROGRAM

## 7:00 - 8:00 Networking Breakfast - Exhibition Hall

### SESSION 4: SECURITY, REGULATORY & STANDARDS

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 - 8:35</td>
<td>Digital Security &amp; Stations: Can You Put Your Data in the Cloud?</td>
<td>Kenneth Elkinson, Doble Engineering</td>
</tr>
<tr>
<td>8:35 - 9:10</td>
<td>Physical Security - Innovative Ways to Increase Substation Resiliency</td>
<td>Petter Fiskerud &amp; Pat Ervin, ABB</td>
</tr>
<tr>
<td>9:10 - 9:30</td>
<td>Continuum of Physical Security Asset Hardening: Threat Assessment to Design, Implementation &amp; Use</td>
<td>Scott Nowicki, Quantum Spatial Inc.</td>
</tr>
<tr>
<td>9:30 - 10:00</td>
<td>Panel Session</td>
<td>Kenneth Elkinson, Doble Engineering, Petter Fiskerud &amp; Pat Ervin, ABB, Scott Nowicki, Quantum Spatial Inc.</td>
</tr>
</tbody>
</table>

*Agenda is subject to change without notice*

Tel: 1.514.866.5377   events@ceati.com   www.ceati.com
**MARCH 8th DAY 2 - STATIONS PROGRAM**

**10:00 - 10:30 Networking Break - Exhibition Hall**

**SESSION 5: ASSET MANAGEMENT INNOVATIONS FOR FUTURE SUBSTATIONS**

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30 - 10:50</td>
<td>Developing Degradation Curves and Estimating Relationship Between Condition and “Effective Age” for Station Transformers and Circuit Breakers</td>
<td>Yury Tsimberg &amp; Karim Abdel-Hadi, Kinectrics &amp; Manitoba Hydro</td>
</tr>
<tr>
<td>10:50 - 11:10</td>
<td>Best Practices for Asset Condition Assessment of Stations’ Infrastructure</td>
<td>Thor Hjartarson, METSCO Energy Solutions</td>
</tr>
<tr>
<td>11:30 - 12:00</td>
<td>Panel Session</td>
<td></td>
</tr>
</tbody>
</table>

**12:00 - 1:30 Networking Lunch - Exhibition Hall**

**SESSION 6: STATION MATERIALS, DESIGN & TECHNIQUES**

<table>
<thead>
<tr>
<th>Time</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1:30 - 2:00</td>
<td>Asset Management of Electric Power Distribution Cables Using the NRC Depolarization Current Measurements</td>
<td>Refat Atef Ghunem &amp; Bill Bennett, National Research Council Canada &amp; Hydro Ottawa Limited</td>
</tr>
<tr>
<td>2:00 - 2:20</td>
<td>PG&amp;E Substation Asset Condition Monitoring (SACM) System for Critical Assets</td>
<td>Brian Sparling &amp; Tom Rak, Dynamic Ratings &amp; PG&amp;E</td>
</tr>
<tr>
<td>2:40 - 3:00</td>
<td>Categorizing Transformer Faults via Dissolved Gas Analysis</td>
<td>Randy Cox, GE Grid Solutions</td>
</tr>
<tr>
<td>3:00 - 3:30</td>
<td>Panel Session</td>
<td></td>
</tr>
</tbody>
</table>

**3:30 - 3:50 Networking Break - Exhibition Hall**

**SESSION 7: OTHER TOPICS**

<table>
<thead>
<tr>
<th>Time</th>
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<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:30 - 3:50</td>
<td>Self-Diagnostic Assets: What They Are Really Telling You</td>
<td>Kenneth Elkinson, Doble Engineering</td>
</tr>
<tr>
<td>4:10 - 4:40</td>
<td>Please Build this Substation in My Back Yard</td>
<td>Carl Tully &amp; Jay Keeling, NBBJ &amp; POWER Engineers, Inc.</td>
</tr>
<tr>
<td>4:40 - 5:00</td>
<td>Panel Session</td>
<td></td>
</tr>
<tr>
<td>5:00 - 5:10</td>
<td>Concluding Remarks</td>
<td>Ken Kopechanski, CEATI International Inc.</td>
</tr>
</tbody>
</table>

**Backup Presentations**

- **Best Practices for Strategic Replacement of Substation Assets**
  - Jigdel Kuyee, METSCO Energy Solutions
- **The Case for Eliminating Animal-Caused Outages in Electric Substations of the Future**
  - Marty Niles, Greenjacket Inc.
Registration Form

You may also register online at www.ceati.com/Spring2017

Your Information

Name
Title
Organization
Street Address
City, Province/State
Country
Postal/Zip Code
E-mail
Phone
Fax

Payment Options

- Visa
- Mastercard
- American Express

Card No.
Expiry Date
Signature
Cardholder

Registration Fees

Register by January 12, 2017 and save $50.

- $955 USD Standard Registration
- $735 USD CEATI Participant Registration
- $735 USD Speaker
- $475 USD Student

Exhibitor options available online!

Important Information

Registration fees include proceedings package, breakfast, breaks, lunches and reception where indicated on the schedule.

- Please check if you wish to be contacted about allergies or other dietary requirements.

Prices are in USD. Charges will appear as ‘CEATI International Inc’ and are subject to applicable taxes and fees.

All cancellations received at least 30 days prior to event will be subject to a $200 processing fee. There will be no refunds granted after this date. Delegate substitution is permitted at no extra cost.

Please note that all names completing this form will be added to CEATI’s mailing list. If you do not wish to be included in this electronic outreach, please click the “unsubscribe” button in the email to remove yourself.

Completed registration forms can also be sent by email to events@ceati.com or by fax to (514) 904-5038

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Spring 2017 Industry Conference
March 7-8, 2017 • Indian Wells, CA

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