

# CEATI's 6<sup>th</sup> Annual Grounding & Lightning Workshop

October 6-7, 2014 • Niagara Falls, ON, CAN

## Workshop Overview

Grounding and lightning issues continue to be an important area of development for the industry, as new and better ways to design, construct and test grounding and lightning systems progress to meet higher standards and changing industry demands. This workshop is an open forum for information exchange, with a focus on technical presentations, training and the sharing of ideas and experiences for the benefit of the industry.

Supported by over 30 utilities, the 6th Annual Grounding and Lightning Workshop brings together leading grounding and lightning experts from around the world, providing an exceptional opportunity for networking with consultants, manufacturers and representatives from electric utilities.

## Workshop Highlights

- Station Class Surge Arrester Application on Underbuilt Distribution Lines
- Grounding System Health Index Methodology
- Lightning Protection of Transmission & Distribution Lines
- Methods for Improving Ground Resistance of Transmission Structures
- Personal Protective Grounding - Utility Experience
- Grounding System Test Equipment and Measurement Techniques
- Soil Resistivity Testing
- Evaluation on Comparison of Grounding Test Equipment
- Risk in Design, Construction and Testing for a New Grounding System
- Grounding System Maintenance

This Workshop is organized with the support of the Grounding & Lightning Task Force:



Share knowledge and best practices with your fellow Grounding & Lightning professionals in Niagara Falls, ON.

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October 6-7th, 2014, Niagara Falls, ON, Canada



## Day 1: Monday, October 6, 2014

**7:30 - 8:30** Registration  
*Breakfast will be served in the Exhibition Hall*

**8:00-8:40** Welcome Address  
*John Williamson, CEATI International*

**8:40-9:10** Grounding System Risk in Design,  
Construction and Testing a New Grounding  
System  
*Babak Jamali, METSCO*

**9:10-9:45** Substation Ground Potential Rise (GPR)  
Monitoring  
*Stephen Palmer, Safearth Australia*

**9:45-10:10** Networking Break  
*Exhibition Hall*

**10:10-10:45** Copper Theft Issues and Methods to  
Mitigate  
*Henry Kowalewski, Erico*

**10:45-11:20** Fence Grounding Methods  
*Andrew Meikle, Ontario Power Generation*

**11:20 -11:55** Personal Protective Grounding - FortisBC  
Experience  
*Aram Khalil-Pour, Fortis BC*

**11:55-12:00** Question Period

**12:00-13:00** Networking Lunch  
*Lunch will be served in the Exhibition Hall*

**13:00-13:35** Mitigation of Cathodic Protection  
Interference Without Bonds  
*Mike Ames, SAE Inc.*

**13:35-14:25** AC Corrosion on Underground Steel  
Pipelines Caused by Induced AC Voltage  
*Laszlo Forgo, Pacific Gas & Electric Co.*

**14:25-14:55** Soil Resistivity Testing  
*Peter Dick, Kinectrics*

**14:55-15:15** Networking Break  
*Exhibition Hall*

**15:15-15:50** Grounding System Test Equipment and  
Measurement Techniques - An  
Engineer's Perspective  
*Russell Raymond, Orion Magnetics*

**15:50-16:20** Evaluation and Comparison of  
Grounding Test Equipment  
*TBA*

**16:20-16:50** Methods for Improving Ground  
Resistance of Transmission Structures  
*Emanuel Petrache, Kinectrics*

**16:50-17:00** Day 1 Concluding Remarks

## RECEPTION To be held in the Exhibition Hall

Attendees are invited to a reception for  
networking with cocktails and hors d'oeuvres.

## Co-Located CEATI Transmission & Distribution Events

<b>Sept. 30 - Oct. 1, 2014:</b>	Transmission Line Asset Management (TLAM) Interest Group Fall Meeting
<b>October 1, 2014:</b>	Transmission Overhead Design & Extreme Event Mitigation (TODEM) Interest Group Fall Meeting
<b>October 2-3, 2014:</b>	Transmission Lines for the 21st Century: Design & Asset Management Workshop
<b>October 8, 2014:</b>	Grounding & Lightning Task Force (GLTF) Annual Meeting
<b>October 8-9, 2014:</b>	Life Cycle Management of Station Equipment & Apparatus (LCMSEA) Interest Group Fall Meeting
<b>October 8-9, 2014:</b>	Distribution Assets Life Cycle Management (DALCM) Interest Group Fall Meeting

# CEATI's 6th Annual Grounding & Lightning Workshop:

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**Day 2: Tuesday, October 7, 2014**

**7:30 - 8:30** Registration  
*Breakfast will be served in the Exhibition Hall*

**8:00-8:35** Session Introduction  
*John Williamson, CEATI International*

**8:35-9:05** Grounding System Maintenance Guide and  
Grounding System Health Index  
Methodology  
*Shawn Ota, METSCO*

**9:00-9:35** Comparison of CSA, IEEE and IEC Approach  
to Lightning Protection  
*William Chisholm, Kinectrics*

**9:35-10:10** Reliability Targets for Lightning Protection  
of Transmission & Distribution Lines  
*TBC*

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

**10:30-11:05** Lowering Losses on Transmission Lines with  
Arresters  
*Jonathan Woodworth, ArresterWorks*

**11:05-12:00** Open Forum Question Period: Lightning,  
Grounding, Safety

**12:00-13:00** Networking Lunch  
*Lunch will be served in the Exhibition Hall*

**13:00-13:05** Session Introduction  
*John Williamson, CEATI International*

**13:05-13:20** CEATI Grounding and Lightning  
Projects  
*John Williamson, CEATI International*

**13:20-13:55** Utility Practices in Grounding Design,  
Construction and Testing  
*TBA*

**13:55-14:30** An Advanced Consideration of  
Traditional Protection to Improve Aged  
Cable Systems Reliability  
*Jean Dion, TransElect Common*

**14:30-15:05** Station Class Surge Arrester Application  
on Underbuilt Distribution Lines  
*Aram Khalil-Pour, FortisBC*

**15:05-15:25** Networking Break  
*Exhibition Hall*

**15:25-16:00** Induction Hazard to HVDC  
Transmission Line Personnel  
*David Swatek, Manitoba Hydro*

**16:00-16:35** Improved Location and Evaluation of  
Lightning Events on the Power System  
*Fred Elmendorf, Grid Protection Alliance*

**16:35-17:00** Concluding Remarks



# CEATI's 6th Annual Grounding & Lightning Workshop: October 6-7th, 2014, Niagara Falls, ON, Canada



Online registration can be completed at [www.ceati.com/register/gltf](http://www.ceati.com/register/gltf)

## Your Information

Name	<input type="text"/>
Title	<input type="text"/>
Organization	<input type="text"/>
Street Address	<input type="text"/>
City, Province/State	<input type="text"/>
Country	<input type="text"/>
Postal/Zip Code	<input type="text"/>
E-mail	<input type="text"/>
Phone	<input type="text"/>
Fax	<input type="text"/>

## Payment Options

Visa   Mastercard 

Card No.	<input type="text"/>
Expiry Date	<input type="text"/>
Signature	<input type="text"/>
Cardholder	<input type="text"/>

Completed registration forms can also be sent by **email** to [workshops@ceati.com](mailto:workshops@ceati.com)  
or by fax to **(514) 904-5038**

## Workshop Location



### CROWNE PLAZA

5685 Falls Avenue Niagara Falls,  
ON L2E 6W7 Canada

For reservations please call

+1 905-374-4444

<https://resweb.passkey.com/go/b1931457>

All workshop guests are eligible for a discounted rate of \$119 (CAD) subject to availability. Simply mention "CEATI International" when reserving. Reservations must be made prior to August 21, 2014.

## Registration Fees & Discounts

Register by May 1, 2014 and receive a **\$50 discount**

- \$955 Standard Registration
- \$675 CEATI Program Participant Registration
- Free Presenters & GLTF Members\*

\* GLTF Participating Organizations receive 2 complimentary registrations for the Grounding & Lightning Workshop.

## Register for Both Workshops & SAVE up to \$200!

CEATI's Transmission Lines for the 21st Century Workshop will be taking place on October 2nd & 3rd, 2014. More information can be found at [www.ceati.com/Meetings/TW2014](http://www.ceati.com/Meetings/TW2014)

Register for both workshops, and SAVE!

- \$1710 Standard Registration - Both Workshops
- \$1350 CEATI Program Participant Registration - Both Workshops

Ask Us About Exhibitor & Sponsorship Opportunities!  
[email workshops@ceati.com](mailto:workshops@ceati.com) for more information

## 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

Charges will appear as 'CEATI International Inc' and are subject to applicable taxes and fees.

All cancellations received 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.