

UTILIZING DRONES FOR THE CANADIAN ENERGY MARKET

July 10-11, 2019

Hilton Garden Inn Toronto/Ajax

Toronto, ON



“

“I was able to take away some invaluable information and new relationships that I otherwise would not have been privy to if I had not attended this EUCI conference.”

Inspection Technician,
Ontario Power Generation



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OVERVIEW

As Remotely Piloted Air System (RPAS) usage in Canada becomes more widespread and regulatory considerations evolve, it's becoming increasingly important to stay up-to-date on the drones industry, particularly as it relates to energy. This conference gathers industry experts to discuss all the important topics relevant to RPAS for the Canadian market. Experts will explain a comprehensive overview of RPAS for the energy industry. Transport Canada will address the new drone regulations, taking effect June 1, 2019. Ontario Power Generation will describe the evolution of an RPAS program from a nuclear perspective, from proof of concept to operational alignment with new regulations. A hydropower expert with decades of experience with FERC will discuss drone inspection for hydropower projects. NASA will provide a case study for power line inspection work. Enbridge Natural Gas Distribution will participate in the Hot Topics Q&A panel. National Research Council Canada will discuss considerations for companies with projects in both the US and Canada. Mohawk University's drone expert will provide cutting-edge information regarding the latest RPAS technology. Ontario Power Generation will provide a case study regarding RPAS innovations in radiation detection and harsh environment inspections, and Sharper Shape will describe how to automate the RPAS data lifecycle.

Our drone events are truly one of a kind. Don't miss the chance to meet with industry experts and have all your questions answered!

LEARNING OUTCOMES

- Explain a comprehensive overview of RPAS for the energy industry
- Discuss the new Transport Canada Drones regulations
- Describe the evolution of UAV program from a nuclear perspective, from proof of concept to operational alignment with new regulations
- Explain RPAS for hydropower projects
- Address NASA's UAV power line inspection work
- Participate in an RPAS hot topics panel, with panelists from Ontario Power Generation, Enbridge Natural Gas Distribution, and GE
- Discuss considerations for using RPAS in both the US and Canada
- Explain cutting-edge technology in RPAS usage
- Describe RPAS innovations in radiation detection and harsh environment inspections
- Discuss considerations when automating the RPAS data lifecycle

WHO SHOULD ATTEND

- EPCs (engineering/procurement/construction)
- Surveyors
- Technology leads
- Geographic information officer
- Supervisor of GIS
- Director of operations
- Operations & maintenance professionals in electric transmission & distribution
- T&D line inspection maintenance personnel
- T&D safety personnel
- Security professionals in the utility industry
- Attorneys who work in the utility industry
- Anyone else interested in learning more about how UAS can be used within T&D

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AGENDA

WEDNESDAY, JULY 10, 2019

8:00 – 8:30 am

Registration & Continental Breakfast

8:30 – 10:00 am

Overview: RPAS for the Energy Industry

- Business case
- Utilization techniques
- Case study
- Recent technology

Shailendra Singh, Director of Business Development, Honeywell Aerospace UAV Solutions

10:00 – 10:30 am

Networking Break

10:30 – 11:15 am

Regulatory Session

- What is Part IX of the Canadian Aviation Regulations (CARs)
- How does this affect the RPAS community: Basic, advanced, airspace, registration of RPAS, flight review, enforcement, partnerships
- What isn't covered by Part IX of the CARs
- If your operation isn't covered by Part IX of the CARs, how can you apply for a Special Flight Operations Certificate (SFOC)
- What Transport Canada is working on regarding RPAS operations in the future, now that Part IX is in force
- Any questions the audience may have

Jim Pengelly, Service Team Officer, Transport Canada

11:15 am – 12:00 pm

The Evolution of an RPAS Program from a Nuclear Perspective, from Proof of Concept to Operational Alignment with New Regulations



- Proof of concept to compliant operation
- Building the program and the ROI
- Compliant Operator to Part IX

Tim Trebilcock, Associate Engineer, Ontario Power Generation

12:00 – 1:00 pm

Group Luncheon



"I really enjoyed learning from other utilities and meeting industry counterparts. Our program will definitely benefit from attending this conference."

UAS Program Lead, San Diego Gas & Electric



"Absolutely wonderful conference, by the way. All topics were extremely relevant and covered well. The networking opportunity was the best I've experienced so far!"

Operational Strategy & Business Intelligence – Strategic Initiatives, ComEd

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AGENDA

WEDNESDAY, JULY 10, 2019 (CONTINUED)

1:00 – 1:45 pm

RPAS for Hydropower Projects

- Hydropower safety
- NERC compliance
- Environmental monitoring
- Need to integrate technology with RPAS to achieve long term comparable results

Tom Russo, Principal, Russo on Energy

1:45 – 2:30 pm

NASA's RPAS Power Line Inspection Work

- UAV based powerline inspection
- Autonomous corona detection
- Autonomous path planning
- Flight corridor compliance
- RPAS traffic management

Nicholas Rymer, Research Engineer, NASA Langley Research Center

2:30 – 3:00 pm

Networking Break

3:00 – 4:30 pm



Hot Topics & Practical Considerations: RPAS Integration into the Energy Industry

Tim Trebilcock, Associate Engineer, Ontario Power Generation

David Watkins, Director Power Operations Canada, Enbridge Gas Distribution

Shailendra Singh, Director of Business Development, Honeywell Aerospace UAV Solutions

William Paden, CEO, Soaring Eagle Imaging

4:30 – 5:30 pm

Networking Reception

THURSDAY, JULY 11, 2019

8:00 – 8:30 am

Continental Breakfast

8:30 – 9:15 am



Using Drones: The US-Canadian Nexus

This session will cover all regulatory and practical considerations for companies using RPAS in both US and Canada, and/or near the border. Case studies and technological advancements will be included.

Charles Vidal, Aerial Robotics Project Lead, National Research Council Canada

Iraj Mantegh, Program Head, National Research Council Canada

9:15 – 10:00 am

Cutting-Edge Technology in RPAS Usage

- Drones and mapping
- Drones and structural envelope inspection
- Drones and construction planning
- Drones and policing
- Looking ahead

Richard Berger, Faculty Professor, Mohawk University

10:00 – 10:30 am

Networking Break

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AGENDA

THURSDAY, JULY 11, 2019 (CONTINUED)

10:30 – 11:15 am

RPAS Innovations in Radiation Detection and Harsh Environment Inspections

- Operating RPAS in GPS denied environments
- On Power RPAS inspections
- Radiation detection and measurements with RPAS

Vajira Jayasinghe, Section Manager – NDE Technology Innovation, Ontario Power Generation

11:15 am – 12:00 pm

Automating the RPAS Data Cycle

Collecting, managing, and analyzing RPAS utility inspection data is highly rewarding but also quite demanding and labor intensive. Most people who are currently using RPAS for utility inspections are painfully aware of this fact and are eagerly anticipating the day when the process is automated throughout the data collection and analyzation cycle. There is a lot of buzz around artificial intelligence and autonomous drone flights making the utilization of drones for infrastructure inspection quick and painless. But which strategies are most promising for automatically creating flight plans and executing missions? Is Artificial Intelligence and computer vision already a viable alternative to human inspectors? This session examines what the state of RPAS automation looks like today and attempts to forecast where technological advances might soon be making a real impact on how drone inspection data is acquired and analyzed

William Paden, CEO, Soaring Eagle Imaging

12:00 pm

Conference Adjourns



“This outstanding conference brings together in one room the level of collaborations rarely found in our industry.”

CTO, RBS Drone Technologies



“Attending the UAS for Electric Utilities conference is highly recommended as it is a great way to hear about how utilities are using UAS.”

Project Advisor, San Diego Gas & Electric



“EUCI provided a well-rounded, informative conference of great interest to utilities. Their staff are professional facilitators who run great meetings.”

Principal Power System Engineer,
Utility System Efficiencies, Inc.



“A rich environment for collaboration and sharing best practices information.”

Flight Ops Supervisor,
Southern California Edison



“I find these smaller conferences highly valuable due to the ready access to experts and more intimate networking.”

Manager- Projects, Com Ed

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INSTRUCTIONAL METHODS

Case studies, PowerPoint presentations and classroom exercises will be used in this event.

REQUIREMENTS FOR SUCCESSFUL COMPLETION

Participants must sign in/out each day and be in attendance for the entirety of the conference to be eligible for continuing education credit.

IACET CREDITS



EUCI has been accredited as an Authorized Provider by the International Association for Continuing Education and Training (IACET). In obtaining this accreditation, EUCI has demonstrated that it complies with the ANSI/IACET Standard which is recognized internationally as a standard of good practice. As a result of their Authorized Provider status, EUCI is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standard.

EUCI is authorized by IACET to offer 0.9 CEUs for the conference

EVENT LOCATION

A room block has been reserved at the Hilton Garden Inn Toronto/AJAX, 500 Beck Crescent, Ajax, ON L1Z 1C9, Canada, for the nights of July 10-11, 2019. Room rates are \$169 CAD, plus applicable tax. Call **1-905-686-9400** for reservations. The cutoff date to receive the group rate is June 10, 2019 but as there are a limited number of rooms available at this rate, the room block may close sooner. **Please make your reservations early.**

REGISTER 3, SEND THE 4TH FREE

Any organization wishing to send multiple attendees to this conference may send 1 FREE for every 3 delegates registered. Please note that all registrations must be made at the same time to qualify.

SPONSORSHIP OPPORTUNITIES

Do you want to drive new business through this event's powerful audience? Becoming a sponsor or exhibitor is an excellent opportunity to raise your profile before a manageably sized group of executives who make the key purchasing decisions for their businesses. There is a wide range of sponsorship opportunities available that can be customized to fit your budget and marketing objectives, including: Platinum, Gold, or VIP sponsor, Reception host, Tabletop exhibit, Lanyard sponsor, Luncheon host and Breakfast host.

Please contact Erin Burba at eburba@euci.com or 720-988-1260 for more information.

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REGISTRATION INFORMATION

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PLEASE SELECT

UTILIZING DRONES FOR THE CANADIAN ENERGY MARKET CONFERENCE

JULY 10-11, 2019: US \$1695 CAD + 13% HST (\$1915.35 CAD)

Early bird on or before June 21, 2019: US \$1495 CAD + 13% HST (\$1689.35 CAD)

ENERGIZE WEEKLY

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How did you hear about this event? (direct e-mail, colleague, speaker(s), etc.)

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CREDIT CARD INFORMATION

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Exp. Date | Security Code (last 3 digits on the back of Visa and MC or 4 digits on front of AmEx) | Billing Zip Code/Postal Code

OR Enclosed is a check for \$ _____ to cover _____ registrations.

Substitutions & Cancellations

Your registration may be transferred to a member of your organization up to 24 hours in advance of the event. Cancellations must be received on or before June 7, 2019 in order to be refunded and will be subject to a \$295 CAD processing fee per registrant. No refunds will be made after this date. Cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other EUCI event. This credit will be good for six months from the cancellation date. In the event of non-attendance, all registration fees will be forfeited. In case of conference cancellation, EUCI's liability is limited to refund of the event registration fee only. For more information regarding administrative policies, such as complaints and refunds, please contact our offices at 303-770-8800. EUCI reserves the right to alter this program without prior notice.