# DIUNEUDOD October Cap Dita





**DATE:** Tuesday October 19, 2021

16:30 - 19:30 Hrs EST

**LOCATION:** Centurion Conference and Convention Center

PROGRAM: Ādisōke – the new Ottawa Public Library and Library Archives Canada

**Joint Facility** 

### **DESCRIPTION:**

The long awaited new joint facility for the Ottawa Public Library and Library Archives Canada is moving ever closer to fruition with construction expected to start in the coming months. Come take a virtual tour of this landmark facility, its design process, its key features, its challenges, and its sustainability initiatives from the perspective of the local architectural partner in charge.

### **SPEAKER:** Ralph Wiesbrock

Ralph Wiesbrock is an Ottawa architect with over 25 years of design and project delivery experience in the full spectrum of building types including institutional, commercial, hospitality, and heritage projects. In recent years he has been partner in charge for several joint venture projects for Ottawa landmarks including the Faculty of Social Sciences Building at uOttawa and the Senate of Canada Building located in the former Ottawa Union Station.

### **October Tech Session**

Topic Heat Pumps
Speaker Joel Primeau
Time 4:30PM-5:30PM

Social Hour/Dinner from 5:30-6:30PM

### **October Program Meeting**

Topic Ādisōke – The New Ottawa Public Library and Library Archives Canada

Joint Facility

Speaker Ralph Wiesbrock

Theme Students Time Students

### Please register online at link below (below prices for VIRTUAL attendance only)

ASHRAE Associate/Affiliate/Member: \$5 Non-Member: \$10.00 ASHRAE Student: \$0 Non-Member Student: \$10.00

https://ashraeottawa.simplesignup.ca/en/9854/index.php?m=eventSummary

e-mail: contact@ashrae.ottawa.on.ca

**TECH SESSION:** Heat Pumps

**DATE:** Tuesday October 19, 2021

16:30 - 17:30 Hrs EST

LOCATION: Centurion Conference and Convention Center

SPEAKER: Joël Primeau, P.Eng., ing., LEED AP, HBDP

**Chief Mechanical Engineer for J.L. Richards &** 

**Associates Limited** 



Governor
Joël Primeau
2021-2022
OVC Research
Promotion Committee
J.L. Richards &
Associates

E-mail: jprimeau@jlrichards.ca

# **President's Message**

Welcome to the 2021-2022 Ottawa Valley Chapter season, we have gotten off to a bit of a rocky start for our communique and thank you for everyone bearing with us during some role transitions. Thank you to everyone who joined us on the September Webinar for a fantastic presentation on Electrification by Costa Kapsis and to everyone who joined us for the Stroke play golf tournament. It was fantastic to see people in person!





President
Adriane Mitani
2021-2022
OVC President
Smith + Andersen

E-mail: adrianne.mitani@smithandandersen.com

AV and video as well as requiring all attendees to be vaccinated as per provincial guidelines. Thank you to our fantastic CTTC team (Elizabeth Primeau, Chris Habets, Marlee Spiegelberg, Elikem Wotortsi) who have gone above and beyond to make this happen.

Our theme for October is Students with our new Student Activities chair Noah Goddard, students are a huge part of our chapter, and our programs are an investment into the future of our industry and the committee has outreach to the local K-12 schools, colleges and universities. Between our program meetings and social events, our chapter gives many opportunities to expose students to HVAC and the opportunities in our field. We encourage you all to sponsor a student when you register, which allows us to provide free attendance to students to events.

The CRC conference is coming to Ottawa next August and we are looking for volunteers! The CRC is a Chapter Regional Conference that volunteers attend each year to discuss the business of the chapters, region and committees. The last two years have been virtual, but the goal is to have Ottawa as the next in person conference. Large thanks go out to Don Weekes, and Jayson Bursill with help from Evan Mutua to getting this off to a great start. Anyone who is interested in helping plan social events, sponsorships, day trips and more, please contact Don and Jayson.

Thanks, and I look forward to seeing you all soon, either virtually or in person!







Gordon Inkpen District Sales Manager - Easterr Canada, Atlantic & Ottawa Belimo Aircontrols (CAN), Inc.
5845 Kernedy Road
Mississauga, ON L42 2G3
Direct: +1 905-712-2046
Cell: +1 902-222-8599
Fax: +1 905-712-3124
gordon.inkpen@ca.belimo.com
www.belimo.ca

## What You Missed

The first meeting of 2022 was presented by Costa Kapsis of the University of Waterloo. This meeting was held virtually via Zoom, in light of the prevailing public health restrictions. Despite not being able to attend inperson, turnout was good with 32 members showing up for the meeting. Participation in the question-and-answer session was also vibrant through Zoom's chat function.

Costa explained the global push towards Net Zero buildings and emphasized the need to think about the life cycle of a building, especially with the typical 120-year life of a Canadian building. Roughly 57% of the energy use over the life of the building is spent on space heating. 4% of



Governor
Evans Mutua
2021-2022
OVC Board of
Governors
City of Ottawa

E-mail: Evans.Mutua@ottawa.ca

energy goes to cooling, but this is expected to increase with climate change. Electric vehicles are also expected to be a considerable portion of energy use.

Mr. Kapsis identified the main electrification imperatives as:

- Environmental imperative
- Financial imperative
- Technical imperative
- Technological imperative
- Transportation imperative

He went on to explain the various pieces required to enable demand flexibility, primarily using IoT (Internet of Things) and connected devices to send signals to the smart grid. Although these measures can help manage demand, the bedrock of demand flexibility is in energy efficient design.

While discussing distributed energy resources, Mr. Kapsis explored the dual benefit of using building-integrated photovoltaic (pv) panels on walls, roofs, windows and shading devices. On the one hand, they provide thermal insulation, while also generating electricity that can be exported to the grid, transforming it from a centralized one-directional energy model to a decentralized bidirectional one. A potential problem with the growth of electric vehicles is the creation of a peak during typical charging times. With a bidirectional grid, EVs can be used for load balancing when the grid is underutilized.

The talk concluded with a case study of two Canadian Net Zero buildings, Evolv1 Office Building in Waterloo, ON and Varennes Public Library in Varennes, QC. There were questions from the audience regarding photovoltaic payback, transmission losses, seasonality of solar and procurement.

The video of the event is available on ASHRAE Ottawa-Valley Chapter YouTube channel. We encourage you to view it.



Capital Communiqué October 2021

# **Membership Update**

I would like to introduce and welcome the following new members:

-Connor Patterson

At any time, if you have any questions or comments regarding your ASHRAE membership, please do not hesitate to contact me. Thank you all for the continued support and participation in your local ASHRAE chapter during these times. Looking forward to seeing everyone at the next ASHRAE virtual meeting in October.



Committee
Chair
Josh
Bourbonniere
2021-2022
OVC Membership
Committee Chair
TRANE

E-mail: josh.bourbonniere @trane.com

# **Student Activities**

We have seen a few new student registrations over the past couple of weeks. I've reached out and welcomed them individually.

Ottawa U has reinstated their ASHRAE group and held their first Zoom call last week. I attended on behalf of OVC. We're hoping to get more attendance at future calls but it was a good start.

We have an upcoming career fair and will work to create a mailing list for students in the area to ensure they are welcomed to our chapter meetings and activities.



Committee
Chair
Noah Goddard
2021-2022
OVC Student
Activities Chair
Longhill Energy

E-mail: noahg@longhill.ca



4 Capital Communiqué October 2021

# **News Update**

### 2022 ASHRAE Winter Conference in Las Vegas Offers In-Person and **Virtual Registration**

Registration is now open for the 2022 ASHRAE Winter Conference, January 29 - February 2. Registration for the conference provides entry to the cosponsored AHR Expo, held January 31 - February 2 at the Las Vegas Convention Center.



Chair Elizabeth Primeau 2021-2022 **OVC Membership** Committee Chair Total HVAC

E-mail: elizabethp@totalhvac.com

For the first time ever, the ASHRAE Winter Conference will be presented in a hybrid format, offering both in-person and virtual options for participation for attendees, provides convenience and affords global participation with a group of the world's leading presenters delivering timely and useful industry content.

The conference will feature over 80 technical sessions with updates from Society leaders, tours, social events and livestreamed sessions for virtual attendees. Technical sessions will address building performance, energy system integration, international environmental health and IEQ and challenges and opportunities for industrial and commercial purposes. Conference registration is now open at ashrae.org/2022winter.

### Integrating IAQ Control Strategies to Reduce the Risk of Asymptomatic SARS-CoV-2 Infections

Asymptomatic individuals' breathing and speaking are considered responsible for a large portion of the spread of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) through airborne transmission, says the new research from ASHRAE's Science and Technology for the Built Environment.

As businesses and schools are making plans to reopen, engineers are assessing how the risk of cross infection can be minimized and prevented. Because of their relatively large occupant density, classrooms and open-space offices present a special challenge.

"Integrating IAQ Control Strategies to Reduce the Risk of Asymptomatic SARS-CoV-2 Infections in Classrooms and Open Plan Offices" evaluates the potential of various indoor air quality control strategies for decreasing the risk of infection through airborne transmission.

Jianshun "Jensen" Zhang, Ph.D., Fellow ASHRAE, discussed his research with ASHRAE Journal:

**1.** What is the significance of this research?

**Zhang**: The research evaluates the potential of various indoor air quality control strategies for reducing the risk of contracting the SARS-CoV-2 virus via airborne transmission. It shows the importance of integrating source control, ventilation and air cleaning/filtration to reduce infection risk.

Universal masking is identified as the most effective source control strategy for reducing the virus generation rate from asymptomatic virus carriers and for providing good protection for individuals. Combining masking with an increased ventilation rate (i.e., supply air flow rate of fresh outdoor air to the building), effective room air distribution and semi-open partitions and air cleaning, it is possible to reduce the risk of infection by a factor of 8.5 to over 500 for classrooms and open-plan offices beyond the typical space conditions designed according to ANSI/ASHRAE Standard 62.1, Ventilation for Acceptable Indoor Air Quality.

2. How does this research further the industry's knowledge on this topic?

**Zhang:** Semi-open partitions integrated with effective room/space air distribution has been identified as an effective strategy for reducing the risk of cross infection but has not been sufficiently emphasized and applied in most existing guidance for combating the spread of SARS-CoV-2.

This is an area that needs more attention from the industry as well as academia. Estimating the potential for various control strategies can help the industry focus on the most effective technologies and their integration for infectious disease control, as well as for improving IAO and energy efficiency.

3. In your research, you list areas that need research and development. How does this research set up those next steps?

**Zhang:** The research indicates that many of the IAQ control principles and strategies developed in the past can be applied to reduce the risk of SARS-CoV-2 infection with more emphasis on minimizing cross contamination in and between rooms. It also discusses some specific problems that need to be further investigated on the subject and recommends 10 areas for further research and development.

# **Research Promotion**

You want to feel good about helping ASHRAE research? Well, that's perfect because I'm looking for a few volunteers to help the RP campaign. Here's what you will be asked to do:



Governor
Joël Primeau
2021-2022
OVC Research
Promotion Committee
J.L. Richards &
Associates

E-mail: jprimeau@jlrichards.ca

- From our list of contacts, you can pick a number of them to call; feel free to call folks you know well.
- We'll train you on the process of donating to ASHRAE research... it's super simple!
- Then, you schedule a bit of "volunteer time" in your calendar to call up your assigned members or companies and walk them through the process of donating. It's not really difficult cold calling for fund raising; our donors just need to be reminded annually.
- Finally, you report your accomplishments back to me and we'll celebrate your effort! And you will feel good about having helped ASHRAE pay for its essential research efforts.

So, reach out to me by phone or email, and we'll set you up. I'm collecting volunteers now, and we'll start making calls in November.

Thanks for volunteering; you're making a difference!

Joel Primeau ASHRAE RP Chair jprimeau@jlrichards.ca (613) 979-5635

ASHRAE Society link: <a href="https://xp20.ashrae.org/secure/researchpromotion/rp.html">https://xp20.ashrae.org/secure/researchpromotion/rp.html</a>

ASHRAE OVC link: <a href="https://ashraeottawa.simplesignup.ca/en/9710/index.php?m=eventSummary">https://ashraeottawa.simplesignup.ca/en/9710/index.php?m=eventSummary</a>

ASHRAE Research to address COVID-19: https://xp20.ashrae.org/secure/foundation/covid.html



530 - 1600 Carling Ave., Ottawa ON, K1Z 1G3 | T 613 230 1186



400-1331 Clyde Avenue Ottawa ON K2C 3G4

david.yin@stantec.com Direct: 613-725-5573 Mobile: 613-323-4964 Fax: 613-722-2799





# **Government Affairs**

To stay current on ASHRAE COVID-19 Response resources check out <a href="https://www.ashrae.org/technical-resources/resources">https://www.ashrae.org/technical-resources/resources</a> including guidance's on infection aerosols, position documents and more.



President-Elect Ryan Dickinson 2021-2022 OVC GAC Chair V&R Engineering

E-mail: ryand@vreng.ca

### **Celebrate Energy Efficiency on October 6!**

Energy Efficiency Day is October 6, 2021. It is a day dedicated to recognizing the importance of cutting energy waste and implementing energy efficiency and other clean energy policies and programs, which can create economic opportunities and jobs while moving toward a sustainable future.

As an annual event, ASHRAE urges elected officials to recognize this occasion with official proclamations and resolutions. To learn more about how to engage with your elected officials and for sample proclamations and cover letters, please visit the <u>Proclamation Toolkit section</u> of the ASHRAE website.

### **ASHRAE Members Meet with Top Canadian Standards and Policy Officials**

On August 19, several ASHRAE members in Canada met with Alba Hanna, Acting Director-General of Energy Efficiency - Natural Resources Canada; Kimberly Curran, Chief of Standards Development for Natural Resources Canada; and Sadettin Yilmaz, Chief of Technical Support Services for Natural Resources Canada. During the meeting, they discussed how ASHRAE can help Canada meet the country's Greenhouse Gas Emission Reduction Targets.

Attending on behalf of ASHRAE was the Government Affairs Committee (GAC) RVC for Region II Mike Genin, GAC RVC for Region XI Daryl Collerman, GAC Vice-Chair and Presidential Member Darryl Boyce, former GAC Chair and Presidential Member David Underwood, ASHRAE Decarbonization Task Force Training and Education Working Group member Doug Cochrane, and ASHRAE Chair of Technical Committee 9.2 Erich Binder. These ASHRAE members will continue sharing technical expertise with Natural Resources Canada and learning what additional resources the agency might need.

### **EPA Issues Final Rule for the Phasedown of HFCs**

On September 23, 2021, the U.S. EPA issued its <u>final rule</u> for the phasedown of HFCs, which is titled, "Phasedown of Hydrofluorocarbons: Establishing the Allowance Allocation and Trading Program under the American Innovation and Manufacturing Act." This final rule was issued under the authority of the American Innovation and Manufacturing (AIM) Act of 2020 to address the production and consumption of hydrofluorocarbons (HFCs), which are potent greenhouse gases commonly used in refrigerators, air conditioners, and many other applications. The rule codifies the phasedown schedule, establishes a method for issuing and trading allowances, and forms a compliance and enforcement system. <u>ASHRAE supported the legislation</u> that authorized the regulations, which are expected to prevent emissions of 4.6 billion metric tons of CO2-Eq. over 2022 through 2050, which is equivalent to about 3 years of U.S. power sector emissions at 2019 levels. More information about the rule can be found <u>here</u>.



4A - 1050 Baxter Rd. Ottawa, Ontario Canada, K2C 3P1 Principal
P: 613-723-4611
C: 613-229-5806
E: stevem@totalhvac.com
W: www.lotalhvac.com







I - 877 - 733 - 3833 www.yorkland.net Yorkland Controls represents leading control systems and component manufacturers.

Larry Gravelle

Tel: (613) 721-3301 Fax: (613) 721-4906

SIEMENS
GREYSTONE
STEPS
SIEMENS
SIEMENS
Lighting, Card Access, CCTV
and Building Antonation.

Johnson 🕖

KIVIC

Controls

# **Advertising**

Advertising career opportunities on the **ASHRAE Ottawa Valley Website** makes good business sense. We offer a unique way to reach technical professionals and make your ad dollars work hard for you.

To discuss your needs, contact one of our chapter officers, via our "This Year" page. Increase the impact of your advertising through the **ASHRAE Ottawa Valley Website** today.



Treasurer
Celine Baribeau
2021-2022
OVC Treasurer
BPA

E-mail: cbaribeau@bpa.ca

Rates for **career opportunities** ads are as follows:

**Chapter Member:** 

\$50/month \$80/2 months \$100/3 months

### Non-member:

\$250/month

Note: Purchase of additional months will only have a discounted rate if purchased up front. Otherwise the standard rate will apply for additional months.

### Placement of an Ad

We suggest that you complete and submit our advertisement form to speed up the processing of your request. If you have provided your e-mail address, a confirmation receipt e-mail will be sent to you for reference.

Please note that ads require prepayment made to the treasurer. Please register and pay through the online system and contact **Celine Baribeau** (<u>cbaribeau@bpa.ca</u>) with any questions. Follow the link below for payment.

The ads will appear on the website until the end date for publication provided in the submitted form. To extend the ad, please resubmit the form with the new publication dates and the required prepayment amounts.

https://ashraeottawa.simplesignup.ca/en/9709/index.php?m=eventSummary

# **Business Card Ads**

You can support your chapter and promote your business by placing your business card in the Capital Communiqué. It will also appear on the chapter website.

The cost is \$275.00 for the year. Please contact **Rod Lancefield** at *rod.lancefield@hts.com* for more details.

Payment will be made through the online system. Follow the link below for payment.

https://ashraeottawa.simplesignup.ca/en/9711/index.php?m=eventSummary

Ads will **now require prepayment**. All last year's ads will appear in the Communique for the first month of this year to allow time for payment for the upcoming year. Ads will be refreshed accordingly in the second Communique.



Publicity
Rod Lancefield
2020-2021
OVC Publicity
Committee Co-Chair
HTS Engineering
Ltd.

E-mail: rod.lancefield@hts.com

2020-2021 **President** Adrianne Mitani **President-Elect** Ryan Dickinson Treasurer Celine Baribeau Secretary **Evans Mutua** Governors Joe Della Valle Mike Swayne Joel Priméau Matt Moore Trevor Thomson **Past President** Joël Primeau Committees Attendance Sandy Taylor Audit Aaron Dobson Capital Communiqué Pat Melville **CRC** Jayson Bursill **Donald Weekes CTTC** Elizabeth Primeau GAC Ryan Dickinson **Financial** Sandy Taylor Greeter Mike Swayne **History** Zachary Lanthier Membership Promotion Josh Bourbonniere Nominations & **Awards** Steve Moons Abbey Saunders PAOE Ryan Dickinson **Program** Elizabeth Primeau **Publicity** Samir Elchamaa Research **Promotion** Joël Primeau Special Events Colleen Fox Rod Lancefield Abbey Saunders Trevor Thomson **Student Activities** Noah Goddard **Tabletop** David Michelin YEA Jeremy Strong Website Samir Elchamaa

8