



**DATE:** Tuesday February 15, 2022

16:30 - 21:00 Hrs EST

**LOCATION:** Centurion Conference and Convention Center

PROGRAM: What's Shakin' - Vibration Fundamentals and Human Perception

**DESCRIPTION:** 

Vibration science is discussed with a view toward human comfort in this presentation. Isolation theory including isolation efficiency, damping, and harmonics are explored as well as the distinction between controlling vibration for equipment life vs human comfort. This presentation will cover the following topics:

• Understand how vibration isolators work regarding isolation efficiency and damping.

• Learn how deflection and isolator frequency response are related.

• Discover how humans respond to building vibration.

Look at the criteria used for both human comfort and long machinery life

SPEAKER: Mark W. Fly , P.E.

Mr. Fly has over 40 years of experience as a Researcher, Consulting Engineer, Contractor, and Manufacturer in the HVAC Industry. He is currently the Executive Director of the Norman Asbjornson Innovation Center at AAON, Inc. in Tulsa, Oklahoma having served as Director of Engineering of AAON for 11 years prior to taking that position. He holds a Bachelor of Science in Engineering Physics from Missouri State University and is a Licensed Professional Engineer in two states.

In ASHRAE, Mr. Fly holds the grade of Fellow and has been honored with both the Distinguished Service and Exceptional Service Awards. He has been and is currently active on numerous Technical

Committees, Standing Committees and Councils, and is currently serving on the Publishing and Education Council and as a Trustee on the ASHRAE Foundation Board. He served as a Director at Large on the ASHRAE Board of Directors from 2014-2017. He has also been active in the HVAC Industry Trade Association, AHRI, where he served on their Board of Directors from 2012-2016 and as Section Chair for Unitary Large Equipment, and Air-to-Air Energy Recovery. He has also participated on the Technical on Sound, Unitary Sector Leadership Council and is currently serving on the Systems Steering Committee.

#### **February Meeting Agenda**

4:30PM-5:30PM Tech Session

Topic: HVAC Filtration Speaker: Joel Primeau

5:30PM-6:30PM Social Hour

6:30PM-7:30PM Dinner

7:30PM-9:00PM Program

Topic: Vibration Fundamentals and Human Perception

Speaker Mark W. Fly , P.E.

Theme Chapter Technology Transfer Committee (CTTC)

### 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

Meeting 5 - February 15, 2022

**TECH SESSION:** HVAC Filtration

**DATE:** Tuesday February 15, 2021

16:30 - 17:30 Hrs EST

**LOCATION:** Centurion Conference and Convention Center

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



Governor
Joël Primeau
2021-2022
OVC Research
Promotion Committee

#### **DESCRIPTION:**

Filters capture airborne contaminants to improve the air quality for human consumption and to protect equipment or processes. This presentation looks at how filters actually work, the different types of filters, how each type applies to certain applications, and how we rate filters. We will also explore newer innovations of filters like electronic filters and ultra-violet technology in filters.







### **President's Message**

We hope everyone is staying warm right now, but we are very excited to be able to get back to offering in person meetings. As always, we are following the public guidelines and depending on your comfort level, we will continue to offer the virtual meeting attendance to those who are more comfortable or are not able to join us in person. We are excited to have Mark Fly coming to Ottawa to talk to us about we perceive vibration and how we can control vibration from our equipment in buildings, it should be a great presentation.



President
Adrianne Mitani
2021-2022
OVC President
Smith + Andersen

E-mail: adrianne.mitani@smithandandersen.com

Thank you to everyone who joined us at the virtual February meeting on Zoom, and experiencing our slightly different format, it was certainly nice to

see some of your faces since it has been a while! Our speaker Marianne Touchie gave us a fantastic presentation about her research on Multi-unit residential building performance, and we look forward to having her back in the future especially with some of the results from her upcoming studies on newer and more efficient buildings and how they actually perform. Thank you to everyone who also stuck around the end for a quick social time, it was nice to catch up, we will be doing these more in the future to give you a bit more social opportunities and interaction with the online format.

Our theme for February is CTTC, which is Chapter Technology Transfer Committee, which is quite the mouthful and is extremely active for the chapter. Their work includes the program meetings, seminars, news updates, as well as the chapter technology awards. Elizabeth Primeau has taken us through the last two years of impressive Zoom and in person meetings and has been able to pivot back and forth as needed. She is supported by a fantastic team Chris Habets, Elikem Wotortsi, Marlee Spiegelberg and Trevor Thomson, thank you for your continued work for the chapter.

As always, a reminder if you are looking at ways to support the chapter and the industry, consider donating to the ASHRAE Research campaign online at any time!

https://ashraeottawa.simplesignup.ca/en/9710/index.php?m=eventSummary

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







### What You Missed

On January 18th, ASHRAE OVC successfully hosted its first meeting of 2022 exclusively online via the Zoom platform, in a now familiar and wellorchestrated flow. An audience of about 35 tuned in to listen, learn and even socialize informally at the end.

Veteran presenter Joel Primeau effortlessly delivered the tech session whose topic this month was 'Exergy', a term that might not feature in your hodgepodge of mainstream energy conservation buzzwords but is no less important to consider especially when designing systems for big picture E-mail: Evans. Mutua @ottawa.ca energy and exergy efficiency. While one might be tempted to refer to exergy as 'the portion of energy that is lost while putting energy to work',

Secretary Evans Mutua 2021-2022 City of Ottawa

this summary in no way replaces the hour-long insightful talk by Mr. Primeau, which can be found on the Chapter's YouTube channel, along with some interesting questions at the end.

The Program meeting was delivered by Marianne Touchie of the University of Toronto. Dr. Touchie, the director of the Building Energy and Indoor Environment Lab at the University of Toronto, took the audience through research that she and her students have been carrying out in Multi-Use Residential Buildings (MURBs). In her presentation she shared fascinating findings highlighting the various challenges that come with designing and operating such diverse buildings, among them taking an accurate and representative temperature on which to base the control of the entire building. This quickly uncovers another challenge - cost. While it would be ideal to equip each tenant space with its own self-contained HVAC system, this is often not practical due to cost constraints, thereby necessitating a well thought out compromise. This very information rich talk in its entirety can be found on the Chapter's YouTube channel and we encourage you to view it.

### **Membership Update**

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

- Haben Habte
- Jaelin Lee
- Abhijith Thankachan
- Samuel Ezekiel
- Adam Frv
- Alexander Ovodov
- Trevor Root



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

E-mail: josh.bourbonniere @trane.com

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 with your local ASHRAE chapter during these times. Wishing everyone a safe and happy holiday season. Looking forward to seeing everyone at the next ASHRAE meeting in February.



Ross McIntyre, P.Eng. Principal, Designated Consultant, Mechanical Engineer

1688 Woodward Dr., Ottawa, ON. Canada, K2C 3R8 Telephone: 613-727-5111 ext. 239 Fax: 613-727-5115 rossmo@gwal.com

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> HTS Ottawa 830 Campbell Avenu Ottawa, Ontario K2A 2C2 T 416.661.3400 Ext: 2803 Toll Free 1.800.850.0567







### **Student Activity**

A couple of new student members have joined since our last update. We have welcomed them and will begin inviting them to our events.

Our short-term focus remains getting local companies and students to the virtual career fair that will be hosted in February.

Our secondary goal is to get into classrooms at the various institutions. There is a return to in-class learning occurring at the end of January so we will need to revisit how open to guest speakers the faculty will be at that time.



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

E-mail: noahg@longhill.ca

### **News Update**

#### Check out ASHRAE's Climate Change Address at UN's COP26:

ASHRAE was represented at the United Nations Climate Change Conference of the Parties (COP26) in Glasgow, Scotland, held from October 31-November 12.

ASHRAE formally participated as a Non-Governmental Organization (NGO) and an official COP observer. The United Nations granted permission for select organizations to participate in COP26 activities.



CTTC
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Member
Elikem
Wotortsi
2021-2022
OVC
Stantec

E-mail: elikem.wotortsi@stantec.com

More than 60 of the largest and most influential international architecture, landscape architecture, engineering, planning, and construction firms, along with two dozen organizations representing over one million building industry professionals worldwide, issued a Communiqué to government leaders headed to COP26 challenging them to step up their emissions reduction targets for the built environment. The firms and organizations are signatories of the 1.5°C COP26 Communiqué — an open letter to sovereign governments demonstrating the firms' and organizations' commitment to meet the Paris Agreement's 1.5°C carbon budget and demanding governments do the same.

Find out more here: ASHRAE Addresses Climate Change Solutions at UN's COP26

#### Jp2g Consultants Inc.

Mark MacIsaac, P.Eng. Mechanical Team Lead

1150 Morrison Drive, Suite 410 Ottawa, ON K2H 8S9 Tel.: 613.828.7800 x.213 Cell: 613.697.4721 Email: markm@jp2g.com



## Longhill Energy

Chris Harrison

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ASTER.CA

February 2022

### **Research Promotion**

Thank you to all of our sponsors who have donated so far to our campaign!



Governor
Joël Primeau
2021-2022
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<b>ASHRAE Partner</b>	<b>ASHRAE Associate</b>	<b>Major Donor Silver</b>
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**Special Thank-You to the following Donors for their contribution:** 

Ross McLaren, Elizabeth Primeau, Jean Yves-Cote, Richard Lemelin, David Fanset, Chris Brown, Jeff Jarvis, Stephen Harrison

Joel Primeau ASHRAE RP Chair

ASHRAE Society link: https://xp20.ashrae.org/secure/researchpromotion/rp.html

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



### **Nominations & Awards**

Calling all volunteers! As chairs of the Awards & Nominations Committee, Abbey Saunders and I want to send a message to our membership reminding them of the upcoming nominations period. We will formally open positions to nominations at the March meeting, but now is a good time to give some thought to if volunteering for ASHRAE is a good fit for you.



Committee
Chair
Steve Moons
2021-2022
OVC Nominations
Committee
Total HVAC

As we hopefully approach the end of the pandemic, the OVC chapter has high hopes to return to the typical year of technical and social events. We have a strong group of

E-mail: steve.moons@totalhvac.com

volunteers who haven't had the opportunity to do as much as we hoped, but we can always use more. Have you wondered how you could establish a deeper network of contacts within our construction industry? Have you thought about how you can give back to the industry that supports your occupation? Have you considered how you can be a more integral part of developing the built environment of Ottawa and the surrounding area? The answer to these questions may be volunteering with the ASHRAE Ottawa Valley Chapter. In addition to the many good works you can do to help grow and support our local chapter, there are many benefits to you as well, from getting to know more people within the industry, to building a resume, to being part of technical committees that form the standards that become building code. There are many potential positions, with varying levels of commitment that could be a great fit. From positions that require only after-work attendance at the monthly meetings, to positions that require only an hour or so a month of work from your desk, there are several ways that you can help your local chapter. If you have a position you would like to inquire about, or just want more information, please don't hesitate to reach out to Abbey or myself, or any of the Governors or Executive on our chapter for more information.



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### **Government Affairs**

To stay current on ASHRAE COVID-19 Response resources check out https://www.ashrae.org/technical-resources/resources including quidance's on infection aerosols, position documents and more.



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

#### A Guide to Decarbonizing the Built Environment

The World Economic Forum published a brief guide on decarbonizing the built E-mail: nyand@vreng.ca environment, including information on new construction and retrofits, green finance, and the role of cities. To view the guide, please visit **here**.

#### Alberta Chapters Share COVID-19 Guidance with Edmonton School Board

In December, the Northern Alberta and Southern Alberta ASHRAE Chapters shared ASHRAE's COVID-19 guidance with the Edmonton Public School Board, in a letter that can be found here. Edmonton's two largest school divisions are making moves to upgrade their ventilation systems in a bid to prevent the spread of COVID-19, coming as students are expected to return to in-person class in January, and the highly-infectious Omicron variant brings Alberta's case counts to all-time highs. An Edmonton citizen reached out to the ASHRAE chapters looking for information and support to help the school board to develop pragmatic guidelines about the use of appropriate, supplemental HEPA air cleaners in classrooms. The ASHRAE Northern Alberta Chapter's Government Affairs Chair Andrea Powell and President Justin Phil, in coordination with the Southern Alberta Chapter, then wrote a letter summarizing relevant recommendations from the ASHRAE COVID-19 guidance to support the use of portable HEPA air cleaners to mitigate viral particle transmission. CBC News also covered the Alberta Chapters' quidance in an article that can be found here.

#### **DOE Announces Decarbonization Resource Hub**

The U.S. Department of Energy has created a website providing information and other resources on decarbonization and the steps to implementing a successful decarbonization strategy, from prioritizing energy efficiency to finding financing. As buildings and manufacturing plants generate about two-thirds of U.S. greenhouse gas emissions, carbon reduction goals are vital to meeting national and global climate goals. You can visit the resource hub here.

### New York City Passes Law to Phase Out Fossil Fuels in All Newly Constructed Buildings

On December 15, the New York City Council passed a law banning newly constructed buildings from hooking up to gas. According to the EPA, commercial and residential buildings are responsible for 13% of total greenhouse gas emissions in the U.S. However, in New York City, buildings account for a much larger share of emissions than any other sector, even greater than transportation, according to the City's Inventory of Greenhouse Gas Emissions. Under this new legislation, the "Use of Substances with Certain Emissions Profiles Act," new buildings under 7 stories will not be allowed to include gas-powered stoves, boilers, or water heaters beginning in 2024, and new buildings over 7 stories will have until 2027. These buildings will instead use technologies like electricpowered heat pumps and induction stoves. This bill applies to the approximately 2,000 new buildings constructed in the city every year and does not apply to the city's approximately 1 million existing structures. The bill was signed into law by Mayor DeBlasio on December 22.

### **Table-Top Display**

On If you're looking to communicate the value of your product, there is no better way than to invest in a table-top at an upcoming ASHRAE OVC meeting. Highly attended and highly regarded, our monthly meetings can afford you the opportunity to display your new technologies to an eager group of HVAC/R engineers and contractors. If you wish to review the themes of each meeting to find an appropriate topic, please feel free to contact me.



Committee Chair Connor Patterson 2021-2022 **OVC Table-Tops** JP2G

E-mail: connorp@jp2g.com

What better way to display a new product, existing line, or share great ideas than to have a table-top display at our local OVC ASHRAE meetings? The OVC

meetings provide a captive audience in the industry and exposure to 40+ people. We are currently starting to reserve table-top openings for this ASHRAE year.

Please contact Connor Patterson (connorp@jp2q.com) to secure yours today! Cost for tabletops is \$225.00 and spaces are filling up quickly, so book your table-top today!

Payment is to be made through the online system prior to the date reserved. Follow the link below: https://ashraeottawa.simplesignup.ca/en/10165/index.php?m=eventSummary

### **Table Top Product Descriptions:**

#### HTS



HTS provides technical assistance in the selection and specification of tailor-made isolation systems, as well as supplying vibration isolation products that meet the specifications of projects.







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### **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 Primeau Matt Moore Trevor Thomson **Past President** Joël Primeau Committees **Attendance** Sandy Taylor Audit Aaron Dobson Capital Communiqué Pat Melville **CRC** Jayson Bursill Donald Weekes Connor Ruprecht CTTC Elikem Wotortsi **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** Connor Patterson YEA Jeremy Strong Website

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