

# NEWSLETTER

## **ASHRAE WINDSOR MAY MEETING**

### **Student's Night - Pizza at the Caboto Club**



**Date: Tuesday, May 16th, 2023**

**Location: Giovanni Caboto Club**

**Speaker: Don Colliver, PhD, PE (Virtual)**

**Topic: Foundation and Pillars of Building Decarbonization**

**Time: Doors Open at 5:00 PM, Dinner for 6:00 PM**

**Registration Deadline: Monday, May 15<sup>th</sup>**

**Cost: \$50 for ASHRAE Members, \$60 for Non-Members, \$20 for Students**

**Registration Link: <https://ashraewindsor.simplesignup.ca/en/12765>**

## **ASHRAE WINDSOR MAY MEETING SPEAKER – DON COLLIVER**



Speaker Donald “Don” Colliver has been involved in the energy usage and efficiency of buildings for over 40 years. He is Professor in the Biosystems Engineering Department, and formerly Director of Graduate Studies in the BAE Department and Director of the Kentucky Industrial Assessment Center at the University of Kentucky. He is a licensed Professional Engineer in the Commonwealth of Kentucky. Professionally Don has conducted and managed extensive research in energy usage in buildings and industrial facilities, solar energy, air infiltration and ventilation, building codes, and the analysis of climatological data for determination of design weather conditions. His team developed the

first dehumidification design weather data that was published in the 1997 ASHRAE Handbook – Fundamentals.

Don has lectured in 20 countries with his teaching emphasis in solar PV systems design; indoor environmental control; industrial energy auditing; building energy modeling and analysis; decarbonization; and sustainable design. He was the ASHRAE Society President in 2002-2003. As a result of his initiatives and leadership, ASHRAE launched the Advanced Energy Design Guides - a series of publications that provide guidance on designing and constructing buildings that lead toward net-zero-energy buildings. He served as the leader of this project for ten years during which time ten books were produced which now have over 700,000 copies distributed.

This lecture will give a more in-depth perspective of the issues and potential methods to be used to achieve the net-zero emissions by 2050. Items to be discussed include: the principles of building decarbonization; descriptions of the major pillars to achieving global building sector net-zero emissions; and the challenges and opportunities for building decarbonization.

Note that this presentation will be delivered virtually but the dinner will be held in-person at the Caboto Club.

## **FEBRUARY MEETING RECAP – BASICS OF AIR CHANGE RATES**



Dr. Kishor Khankari, Ph.D. made a lively and engaging presentation on the Basics of Air Change Rates (ACH) to the Windsor Chapter at our February meeting. He discussed how Air Changes per Hour (ACH) are often specified in ASHRAE standards, codes, design guidelines, and handbooks for required ventilation rate. The role of space volume in controlling and distributing the contaminant in the space was discussed, and his presentation further demonstrated whether ACH can be a sole criterion for effective ventilation of



critical spaces using the examples for patient room, hospital operating room, laboratory spaces, and cleanroom. A new concept for analyzing ventilation effectiveness for these spaces was introduced to design and optimize the HVAC layout for healthcare, laboratory, and cleanroom facilities. In addition, a role of demand control ventilation in minimizing the ACH was discussed.



On the same day, ASHRAE Region II Student Activities Regional Vice Chair (RVC) Elizabeth Primeau visited the University of Windsor Student Branch and attended our February dinner meeting as well. She met with ASHRAE student members and discussed her experience in ASHRAE and in her career. The students in-turn had an opportunity to discuss their research in ASHRAE topics with her, and they provided a tour of the University of Windsor's Turbulence & Energy Laboratory.

We wish to thank Dr. Khankari for his engaging presentation and taking the time to discuss the topics highlighted in his presentation. We also wish to thank Student Activities RVC Elizabeth Primeau for visiting our Chapter.

**JANUARY MEETING RECAP – FUEL-SWITCHING HYDRONIC SYSTEMS**



Chris DesRoches, Applied Product Manager with Mitsubishi Electric Sales Canada, presented on Air-to-Water Heat Pumps and how they can best be leveraged to reduce building emissions in retrofits of hydronic systems and new construction alike. He discussed various applications and how a simple air-cooled chiller upgrade to an air-to-water heat pump can lead to significant emission and energy use reductions, and explained exactly how this technology fits into a low-carbon future with electrified buildings from the point of view of engineers, mechanical designers, and energy modelers.

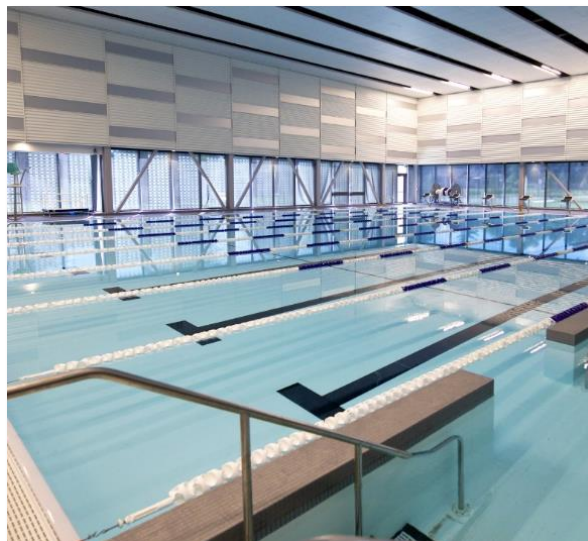
Chris' talk gave rise to a lively discussion among attendees concerning Canada's plan for carbon reduction and our country's future electricity needs. The Windsor Chapter wishes to thank him for his time and engaging presentation.



**NOVEMBER MEETING RECAP – TOLDO LANCER CENTER FACILITY TOUR**



Our November meeting took place at the Toldo Lancer Center at the University of Windsor. Longtime ASHRAE Windsor Chapter member and University of Windsor facilities manager, Danny Castellan, P. Eng., took attendees on a tour of the new facility that opened earlier this year.



The 120,000 square-foot, 73 million dollar facility features a three-court gymnasium with seating for 2000 and three-lane jogging track, an 8-lane indoor pool, and a fitness center for University students. Also included were new multi-use rooms, changerooms, and a commons area. This new facility was built as an addition to the existing St. Denis Center on-campus (portions of which were also included on the tour) that previously served as the primary fitness and athletic center for the University.



Following the tour, attendees met in the facility Alumni Lounge (overlooking the new gymnasium) for a chicken & rib dinner catered by the Tommy's BBQ.

The ASHRAE Windsor Chapter wishes to extend our genuine thanks to Danny Castellan for leading our tour of this exciting new facility as well as his efforts in coordinating the event. Furthermore, the Chapter wishes to extend our thanks to Danny for his years of service to the Chapter and ASHRAE Society as a whole.

## OCTOBER MEETING RECAP – INTRODUCTION TO DECARBONIZATION



Our first dinner meeting of the year took place on Tuesday, October 25 at the Bistro at the River. Distinguished Lecturer Doug Cochrane, P. Eng. presented on an “Introduction to Decarbonization.” Mr. Cochrane discussed ASHRAE’s ongoing initiative to accelerate the mitigation of carbon resulting from energy usage in the built environment, and described the decreases in CO<sub>2</sub> production in Canada that have already been accomplished while outlining the necessary progress that will be needed in years to come to achieve the nation’s carbon reduction goals. Also discussed were potential carbon reduction strategies that can be incorporated into the design of new and existing buildings, and the relevant ASHRAE standards on decarbonization.

Mr. Cochrane also made time to present on decarbonization at the University of Windsor Ed Lumley Centre for Engineering Innovation Building to graduate and undergraduate members of the ASHRAE Student Branch on-campus, and answered questions for the students in attendance.

The ASHRAE Windsor Chapter wishes to extend our thanks to Doug for the generous use of his time in support of our Chapter. We hope to have him return soon.



## MEETINGS AND EVENTS FROM 2022-2023:

Sept. 12, 2022	Golf Tournament	Jan. 17, 2023	Research Promotion Night
Oct. 25, 2022	DL: Doug Cochrane	Feb. 28, 2023	Distinguished Lecturer
Nov. 22, 2022	Membership Promotion	Mar. 21, 2023	YEA Night
Dec. 14, 2022	Christmas Social	Apr. 25, 2023	Past President's Night
		May 16, 2023	Student's Night

## CHAPTER OFFICERS

## BOARD OF GOVERNORS

<i>President:</i>	<b>Amanda Forest, P.Eng.</b>	(519) 984-5696	<b>James Smith, P.Eng.</b>	(519) 737-5725
<i>President-Elect:</i>	<b>Jamie Smith</b>	(519) 890-8684	<b>Steve Koutsonicolas, P.Eng.</b>	(519) 999-9954
<i>Treasurer:</i>	<b>Amanda Forest, P.Eng.</b>	519) 984-5696	<b>Dan Castellan, P.Eng.</b>	(519) 253-3000 x 2164
<i>Secretary:</i>	<b>AJ DeSantis</b>		<b>Paul Greff</b>	(519) 969-8025 x332

## CHAPTER COMMITTEES

<i>Research Promotion</i>	<b>Dave Dufour</b>	(519) 816-8974	<i>Government Affairs Committee</i>	<b>Paul Greff</b>	(519) 969-8025 x332
<i>Membership Promotion</i>	<b>Nathan Cook, P.Eng. &amp; James Smith, P.Eng.</b>	(519) 948-5000 x3223 (519)791-6291	<i>Student Activities Chair</i>	<b>Jamie Smith</b>	(519) 890-8684
<i>Chapter Technology Transfer Committee</i>	<b>Dan Castellan, P. Eng.</b>	(519) 253-3000 x 2164	<i>Student Branch Advisor- University of Windsor</i>	<b>Dr. David Ting, P. Eng.</b>	(519) 253-2871
<i>Historian</i>	<b>Andy Hrutka</b>	(519) 978-3903	<i>Newsletter Editor</i>	<b>Amanda Forest, P.Eng.</b>	(519) 984-5696
<i>YEA Chair (Young Engineers in ASHRAE)</i>	<b>Amanda Forest, P.Eng.</b>	(519) 984-5696	<i>Reception</i>	<b>AJ DeSantis</b>	
<i>Refrigeration Chair</i>	<b>Jon Palmer</b>	(519) 256-7922			

## Advertising and Promotion

Actively participating in ASHRAE events is a great way to network and discuss potential projects and applications. Chapter meetings provide a captive audience and exposure to a group actively involved in our industry. Promotion opportunities are available during our chapter meetings, through the monthly newsletter and the new website.

### TABLE TOP DISPLAY

What better way to display a new product, existing line, or share great ideas than to have a table top display at our monthly chapter meetings?

The fee to provide a Table Top Display is \$200.00 (CAD). In addition to the presentation, the fee also covers the cost of the presenter's meal at the event. If interested in providing a Table Top Display at a future meeting to promote product lines or technologies, please contact Jamie Smith to schedule.

### BUSINESS CARD PROMOTION

The monthly newsletter is distributed to all of our ASHRAE Windsor members as well as several others that are involved in our industry. Inclusion of your business card in the newsletter would provide a great opportunity to introduce your name and company to those members who may not know you personally. Business cards may also be displayed on the new website.

The fee to include your business card in the newsletter is \$100.00 (CAD) for the year ending June 30, 2021. If interested in having your business card information included in the monthly newsletter, please contact Amanda Forest.

## ASHRAE Chapter Involvement

It is a welcome sight to see Chapter members and non-member guests alike attend the monthly meetings and events. The time and effort put forth by all individuals to attend these events is greatly appreciated as it not only helps to strengthen and develop our Chapter as a whole, it also expands the knowledge and understanding of our industry.

As it takes time and effort to attend these meetings, it also takes a great deal of time, effort and dedication to organize and prepare for these events so that they are informative and enjoyable for everyone.

It is a goal of the Windsor Chapter to increase the number of participating members. Involvement in Chapter operations is not limited to the Board of Governor and Chapter Committee positions. All individuals interested in getting involved with ASHRAE at any level are encouraged to volunteer in any capacity they are willing and able to. Any efforts to help the Windsor Chapter continue to develop and improve would be greatly appreciated.

If anyone is interested in volunteering for general involvement or to assist with any specific task, please contact Amanda Forest.

[windsorashrae141@gmail.com](mailto:windsorashrae141@gmail.com)  
Amanda Forest – (519) 984-5696



## ASHRAE – Serving our Members, and more

### **ASHRAE Newsletters**

There's a lot of newsletters available. Some are automatic when you become an ASHRAE Member, such as the following:

[ASHRAE Journal Newsletter](#)

[ASHRAE Insights](#)



You can also connect to other publications from the ASHRAE Website.

[HVAC&R Industry News](#)

[Government Affairs Updates](#)

[High Performing Buildings Newsletters \(HPB\)](#)

[Standards Action Newsletters](#)

Click the following link to review these newsletters, and others!

<https://www.ashrae.org/about/marketing-central/email-newsletters>

### **Training and Certifications**

While ASHRAE has some great videos (accessed [here](#)), they also have Instructor Led Training and Certifications:

**Training:** <https://www.ashrae.org/professional-development/all-instructor-led-training>

[Health Impacts of Indoor Air Extraction, Ventilation and Filtration](#)

[Evaluating Your HVAC System's Readiness to Mitigate the Spread of SARS-CoV2](#)

(note – check the website for specific times)

**Certifications:** <https://www.ashrae.org/professional-development/ashrae-certification>

[Building Design Certifications](#)

[Building Performance Certifications](#)

[Building Operations Certifications](#)