

## President's Report

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A big thank you to our ASHRAE Distinguished Lecturer, Robert Bean, for his excellent virtual presentation at our November meeting on "Using Thermal Comfort Tools to Evaluate Discomfort Probabilities Due to Enclosure Design and Choices in HVAC Systems." We had a good meeting turnout and I appreciate the participation we received by our membership during Q & A. As your ASHRAE Hamilton Chapter President, I also took a moment at November's meeting to highlight ASHRAE as a global organization, including ASHRAE's strategic plan.

Our November meeting was our Young Engineers in ASHRAE (YEA) theme night, a night when we took the time to show our support for YEA, and what we can offer them through membership to ASHRAE. Speaking of YEA, a big "Thank You" to those who participated in our YEA Trivia Night (virtual interactive), one of our annual chapter social events. Our organizer, Marco Ciallella, did a great job setting this up and engaging us virtually. For those like me, who are not trivia buffs, it was not an easy time answering the questions, but I can say that it was a fun time with our ASHRAE friends and colleagues. My personal favourite was the opportunity to listen to musical clips and try to identify the artist and title. It was nice to see how everyone's different musical tastes brought something to the table.

As we approach the holiday season, I wish you all happiness and good health to you and your family and friends.

**Robyn Ellis**  
Hamilton Chapter President 2020-2022

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## Advertise With ASHRAE!

Would you like to advertise in the ASHRAE Hamilton *Airways* newsletter?

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## What You Missed at the September Meeting

The screenshot displays a software interface for thermal comfort analysis. On the left, the 'met rates' section lists various activities with their corresponding metabolic rates. A dropdown menu is open, showing 'Filing, seated: 1.2' selected. Below this, there are buttons for 'Create custom ensemble', 'Dynamic predictive clothing', and 'Solar gain on occupants'. The main input area includes fields for air temperature (77 °F), mean radiant temperature (77 °F), air speed (19.7 fpm), relative humidity (50%), and metabolic rate (1.2 met). On the right, the software output shows 'ASHRAE-55 EN-15251' compliance, 'Complies with ASHRAE Standard 55-2017', and a 'Sensation = Neutral' result. A psychrometric chart is displayed with a yellow dot indicating the current conditions. A small video inset shows Robert Bean, the speaker.

Activity	Metabolic Rate
Writing	1.0
Typing	1.1
Standing, relaxed	1.2
Filing, seated	1.2
Flying aircraft, routine	1.2
Filing, standing	1.4
Driving a car	1.5
Walking about	1.7
Cooking	1.8
Table sawing	1.8
Walking 2mph (3.2kmh)	2.0
Lifting/packing	2.1

Psychrometric (air temperature) chart data:  
t<sub>db</sub>: 92.2 °F  
rh: 68.8 %  
W<sub>s</sub>: 22.6 lb<sub>w</sub>/lb<sub>da</sub>  
t<sub>wb</sub>: 83.1 °F  
t<sub>op</sub>: 80.3 °F  
h: 39.4 btu/lb

**Topic:** Using Thermal Comfort Tools to Evaluate Discomfort Probabilities Due to Enclosure Design and Choices in HVAC Systems

**Speaker:** Robert Bean, Indoor Climate Consultants Inc., *ASHRAE Distinguished Lecturer*

**Date:** Tuesday, November 9, 2020

**Where:** Webinar

Thank you to everyone that attended. All attendees have received a link to view the presentation again.

**Tools Referenced:**

Center for the Built Environment - Tools

<https://cbe.berkeley.edu/resources/tools/>

- CBE Thermal Comfort Tool
- Advanced Ceiling Fan Design Tool

**Discussion Outline:**

1. Code Requirements vs. What Occupants Experience
2. Overview of CBE Thermal Comfort Tool
3. Temperature Stratification, Drafts & Ankle Drafts
4. Shortwave Radiation (Solar)
5. Input Descriptors from ASHRAE 55
6. Evaluating Effects from Humidity
7. Comparison Tool
8. Effects from Elevated Air Speeds (Advanced Ceiling Fan Design Tool)
9. Mean Radiant Temperature
10. Case Study Review

## 2021 Webinar Schedule (tentative)

**December**

Break

**Tuesday, January 12**

CSA 52 (Canadian Refrigeration Code)

**Tuesday, February 9**

ASHRAE Standard 189.1 - Standards for the Design of High Performance Buildings, except Low-Rise Residential

**Tuesday, March 9**

Everyone Communicates, Few Connect

**Tuesday, April 13**

Joint Meeting with Toronto

**Tuesday, May 11**

The Primary Secondary Versus Variable Primary Debate



Please contact Mitchell Rohrer ([mitchell.rohrer@jci.com](mailto:mitchell.rohrer@jci.com)) or Mostafa Mehrdash ([mmehrtash@ehpricesales.com](mailto:mmehrtash@ehpricesales.com)) for any questions/suggestions relating to the ASHRAE Hamilton 2020-21 program.

## Research Promotion Update

Thank you to those who have contributed to this year's Research Promotion (RP) campaign:

**Organizations - Gold Level**

**University of Waterloo**

**Individuals**

**Mark Long**

**Aaron Besseling**

**Robyn Ellis**  
**Mitchell Rohrer**  
**Stan Holko**  
**Iain Hill**

### 2020-2021 RP Committee

Iain Hill, Chair  
Aaron Besseling, Member  
Robyn Ellis, Member  
John Molnar, Member  
David Rasmussen, Member  
Mitchell Rohrer, Member

**RP Goal for 2020-2021: \$10,850**

**Contributions to Date: \$3,825**

If you would like to contribute to the future of ASHRAE Research, you can click [here](#) or when you renew your annual membership, you can choose to make a contribution to ASHRAE Research Canada.

## ASHRAE Certifications

Do You Know About ASHRAE Certifications?

ASHRAE certification programs were founded to meet the industry needs of today and provide value to thousands of built-environment professionals, employers and building owners.

For the past 100+ years ASHRAE has worked hard to earn and maintain a worldwide reputation for being the leader in HVAC&R design. ASHRAE certification programs serve to reinforce that reputation.

ASHRAE certification programs:

- Are developed by industry practitioners who understand the knowledge and experience that are expected for superior building design and system operation
- Assure employers and clients of subject mastery
- Serve as a springboard for continued professional development
- Offer an easy-to-apply process
- Allow non-native English speakers additional testing time

Certification programs available include:



[Learn more here.](#)

Mitchell Rohrer  
Chapter Technology Transfer Chair

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## Government Affairs Update



### Invitation to Subscribe to Government Affairs Update

Subscribe now to this bi-weekly newsletter to stay connected with the most recent government activities around the world, pertaining to building professionals like you.

[Subscribe Now](#)

You can access the most recent Government Affairs Update from [this page!](#)

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## Membership Promotion



Interested in becoming a member?  
Apply [online](#) or by [mail](#).

Are you a student looking to become an

# ASHRAE member?

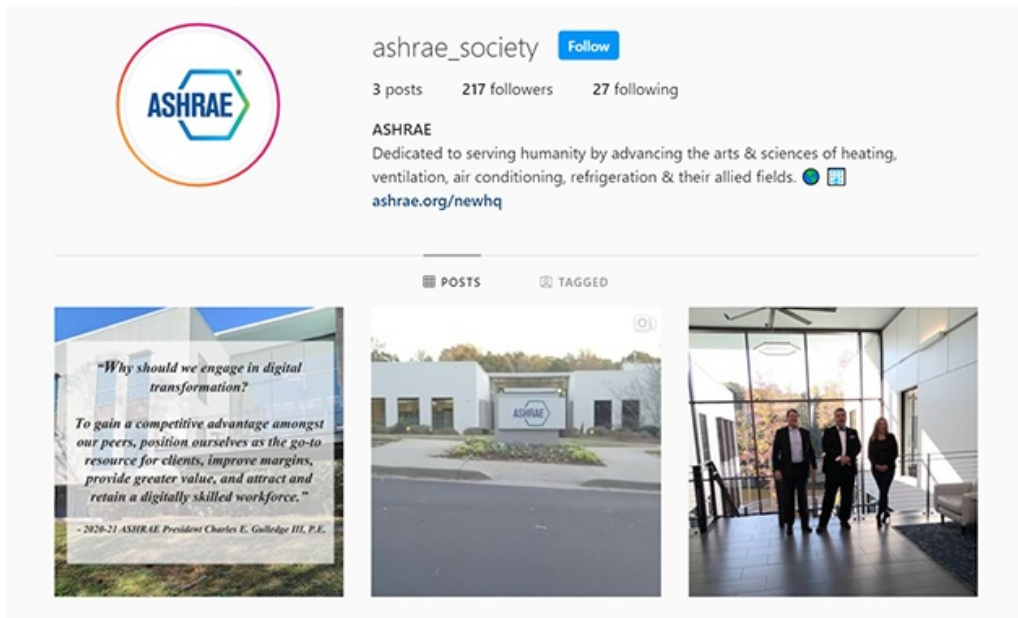
The Hamilton Chapter is excited to continue its initiative to promote and support students that wish to explore the opportunities ASHRAE can provide. For the 2020/2021 year the Chapter is sponsoring students who sign up to become student members by funding their membership dues for one year.

## [Students - Learn more here!](#)

Reaz Usmanali  
Membership Promotion Chair

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## Chapter Notes



## ASHRAE is on Instagram!

From behind-the-scenes at our new innovative headquarters, to society culture and insights, we're bringing you closer to ASHRAE! Follow us at [@ashrae\\_society](#) and see the inner happenings of ASHRAE in a visual way.

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## ASHRAE's New Global Headquarters

A **NEW** short video from 2020-21 ASHRAE President Charles E. Gulledge III, P.E. gives an exciting, inside view of ASHRAE's new global headquarters office. The video can be viewed on [ASHRAE's YouTube channel](#). For more information on our new net-zero-energy building visit [ashrae.org/newhq](http://ashrae.org/newhq).

**Please take note of our new address:** 180 Technology Parkway, Peachtree Corners, GA 30092

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## Meet Our New Chapters

Members Council announced the charter of two new ASHRAE chapters: the **Sudan Chapter** located in Khartoum, Sudan and the **Peru Chapter** located in Lima, Peru. This brings ASHRAE's total number of chapters to 198 globally. Welcome Peru Chapter and Sudan Chapter!

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## ALI Releases New Online HVAC Design Training Schedule

Registration Now Open

**Registration** is now open for **online** HVAC Design and Operations training through ASHRAE Learning Institute (ALI).

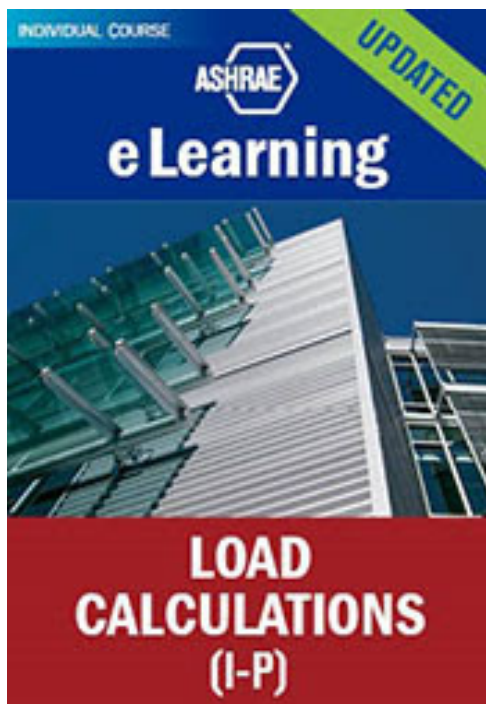
**December 7-11. HVAC Design: Level I – Essentials.** This course provides intensive, practical training ideal for recent technical or engineering school graduates and engineers new to the HVAC field. Developed by industry-leading professionals selected by ASHRAE, the training provides attendees with the fundamentals and technical aspects of HVAC design, installing and maintaining HVAC systems, that can be put to immediate use.

**December 11-14. HVAC Design Level II – Applications.** This course provides instruction in HVAC system design for experienced HVAC engineers and those who have completed the *HVAC Design: Level I – Essentials*. The training covers the technical aspects of design and methods to increase energy savings through innovation in HVAC design.

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## Updated and Expanded: Load Calculations eLearning Course

eLearning Courses are \$45 for Members



The [Load Calculations](#) course has been updated and expanded to help newcomers to the HVAC&R industry master an understanding of HVAC&R fundamentals. The course can also serve as an excellent refresher even if you have worked in the HVAC&R field for some time.

This course will familiarize the learner with internal and external loads to be considered in load calculations, different calculation methods, and interpreting the input and output data of computer-based heat load calculations. Learn about carrying out heat load calculations using fundamentals with a practical example.

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## Job Board

Is your company looking for its next new hire? Contact Christopher Hofland, Newsletter Editor, at [chris.hofland@alumni.utoronto.ca](mailto:chris.hofland@alumni.utoronto.ca) to advertise the posting here in the *Airways* newsletter! Postings are free for chapter members!

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## Volunteerism

We are always looking for more volunteers to help strengthen our chapter.

If you are Interested in getting involved please contact Robyn Ellis at [robyn.ellis.eagles@gmail.com](mailto:robyn.ellis.eagles@gmail.com).



## VISIT OUR WEBSITE

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