



# AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR CONDITIONING ENGINEERS INC.

LONDON CANADA CHAPTER #116

<http://LondonCanada.AshraeChapters.org>

Mon Oct 26/2015

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## **Topic**

Presentation #1

## **Sustaining ASHRAE Through Leadership Mentoring Our Future**

and

Presentation #2

## **How to Communicate Technically in a Professional World with Technical Information**

## **Speaker**

ASHRAE Distinguished Lecturer

## **Doug Zentz**

Associate Professor/HVACR Department Coordinator  
School of Built Environment  
College of Engineering Technology  
Ferris State University

## **Meeting - Mon Oct 26/2015 STUDENT NIGHT**

5:15 pm Social

6:15pm Dinner

7:15pm Speaker

ADVANCED PAYMENT BEFORE MEETING  
by using PAYPAL  
use the chapter web site to register and pay  
<http://LondonCanada.AshraeChapters.org>

location:

**IVEY SPENCER LEADERSHIP CENTRE**  
551 Windermere Road  
London, Ont



## President's Message

Welcome to October with the ASHRAE London Chapter. We are excited to host Doug Zentz (Distinguished Lecturer) for our first student night this year who will be presenting us with two separate topics. The first topic Doug will present will be a part of our regularly scheduled meeting and timetable and is titled, "Sustaining ASHRAE Through Leadership - Mentoring Our Future". The second will be an add-on after the regular meeting and is a condensed version of one of his full lectures titled, "How to Communicate Technically in a Professional World with Technical Information". In addition, we will be joined by our DRC (Director Regional Chair) for Region II, Doug Cochrane of the Toronto Chapter.

We would like to also welcome our first year BOG (Board of Governors) participant, Matt Moore, as the student activities chair. Matt was the president of the student chapter during the 2014/2015 year and it is great to see that he has transitioned into a job in the HVAC industry locally. We are also excited by the expansion of the HVAC course at Western University, which this year has a total of 50 students, half of which are undergraduates. Early in September Matt and I were able to visit the HVAC class at Western University and give the students an introduction to ASHRAE and opportunities in our local HVAC industry. We had great response from the majority of the students with around 30 students signing up as ASHRAE student members. In addition, one of the Masters students, Julien LoTufo, who took the HVAC course last year as an undergraduate and is now in the class as a graduate student has agreed to take on the role of ASHRAE student chapter president. This provides great continuity and we are excited to see what the year has in store for the student chapter. Another of Matt's pursuits for the 2015/2016 year will be to try and establish a Fanshawe student chapter branch. He will be building on the foundation and connections established by Ben Oliver, the 2014/2015 student activities chair. We hope to bring this goal to fruition this year.

We encourage any individuals or businesses interested in contributing to help the chapter offset the costs of subsidising student attendance at chapter meetings to contact one of the chapter executive to make arrangements.

Please see the advertisement at the end of the newsletter which gives details of the upcoming winter conference in Orlando and consider joining me there!

I look forward to seeing you at the chapter meeting, if not sooner.xxxx

Best Regards,  
 Jordan Foster  
 Chapter President 2015/2016  
 ASHRAE London Canada Chapter

## Kick-Start Offers

Pay for your meal plan, newsletter advertising, student sponsorships and ASHRAE Research Canada by completing the form on the chapter website:  
<http://londoncanada.ashraechapters.org/>

\* Take advantage of all five offers and get your name in a draw for a chance to win an ASHRAE London swag package!

### Next Meeting

Mon Nov 30/2015 - Research Night  
 Odour Control Through Oxidation  
 Dan Glenden

### Other Meetings

Jan 23 to 27, 2016 = ASHRAE Winter Conference - Orlando, FL  
 Jan 25 to 27, 2016 = AHR Expo, Orange County Convention Center, Orlando, FL  
 Jun 25 to 29, 2016 = ASHRAE Annual Conference - St. Louis, MO  
 Jan 28 to Feb 1, 2017 = ASHRAE Winter Conference - Las Vegas, NV

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## **SPEAKER**

### **Douglas F Zentz**

Associate Professor – HVACR Program Coordinator  
 HVACR Program – School of Built Environment  
 College of Engineering Technology  
 Ferris State University



Program Coordinator for the HVACR Programs within the College of Engineering Technology at Ferris State University. He received his Bachelor degree in Mechanical Engineering Technology from Purdue University in 1980 and his Master degree in Career and Technical Education from Ferris State University in 2007. He is a past President of West Michigan ASHRAE, a past RVC of Student Activities for Region V, and a past society Chair for Student Activities within ASHRAE (ending June 2014).

In the field of HVACR, his background includes professional engineering sales for the Trane Company, manager of engineering-design-build for W.J. O'Neil Company in Detroit, and vice-president of engineering for EPPA-Strand Custom Air Handling in Detroit. This experience started in 1980 and continued until his transformation into teaching at Ferris State University in 2003.

In the area of teaching, he has taught junior and senior level HVAC Design (primary and secondary systems), Primary Equipment Selection, Commercial Building Heat Gain/ Heat and the senior Capstone Experience. His teaching experiences includes development of new curriculum (both in the traditional classroom and fully on-line) and teaching fully on-line courses for over 12 years. He has mentored eight (8) different student groups which have received either a First, Second, or Third place recognition from ASHRAE in the Student Design Competition. He serves on many educational committees and was a member of Fluke Instrument's Advisory Board on IAQ.

In the area of professional speaking, he has been the guest speaker at 40 events since 2005. Organizations which have invited him to speak include: Mechanical Contractors of America, Air Conditioning Contractors of America, ASHRAE, ARI (teachers workshop), Lily West Conference (educational workshop), USGBC (West Michigan), Ferris State University (Energy Conferences), and Efficiency United (educational arm of 16 Michigan Utilities).

## **TOPIC**

### **Presentation #1**

### **Sustaining ASHRAE Through Leadership Mentoring Our Future**

This presentation will examine "what is leadership", "why ASHRAE needs leadership", "why it is our responsibility to grow leadership within our local chapters", and "how do you mentor generation Y into leaders". The mentoring process is critical to this success and this presentation includes the elements of generation Y such to explain how these generations think, what their values are, and what makes them tick. In doing so the older generations (current leaders in most situations) can understand "how" to motivate and mentor generation Y into future leaders for ASHRAE and the HVACR industry.

### **Presentation #2**

### **How to Communicate Technically in a Professional World with Technical Information**

Many in our Industry struggle with how to communicate effectively with technical information, keeping on target, providing the reader with a proper roadmap of information, delivering all necessary information in a logical & clear format, and doing so such that anyone within our industry can understand the objective and the solution to a given situation or problem. This session illustrates a thought process along with a structure such that anyone can present a technical problem/situation and provide a clear and logical solution in written communication for others.



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### **Daryl Somers, CET**

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#### 2016 Winter Conference Registration NOW Open!

Register for the 2016 Winter Conference in Orlando, Florida. Members only pay \$395 through November 2, 2015. Download our Sample Letter requesting employer support to attend the 2016 ASHRAE Winter Conference.

Learn more about the conference and registration details on the Society web site

Coming April 2016 - Making Net Zero Net Positive: Solving the Efficiency & Cost Paradox  
Save the date for the April 21, 2016 ASHRAE Webcast - Making Net Zero Net Positive: Solving the Efficiency & Cost Paradox. This webcast will feature industry experts who will define the importance of, and why we should strive for, net zero in the built environment. Viewers will be able to identify behaviors that create more effective ownership, design and construction teams, and will recognize the value of a collaborative process in building design and the impact on costs. With a strong emphasis on real-world applications, the program will also discuss the primary technical and financial challenges in achieving net zero buildings, and where this design approach can best be applied.



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#### Cold Climate Challenges Addressed in New Publication from ASHRAE

ATLANTA – Buildings in arctic and subarctic climates face not only challenges related to cold but also remoteness, limited utilities, permafrost and extreme temperature shifts. Designers must meet these challenges while keeping occupants comfortable and minimizing impact on the environment.

The newly published “Cold-Climate Buildings Design Guide” from ASHRAE provides information on the issues commonly faced by designers in these climates. The idea for the guide came from a working session at the 7th International Cold-Climate Design Conference held in 2012 and co-sponsored by ASHRAE, SCANVAC and REHVA.

“Harmonizing human comfort with the climatic realities of these environments is a balancing act,” Erich Binder, who oversaw the writing of the guide, said. “Strategic design is key to building, commissioning and operating efficient and long-lasting cold-climate structures.”

A cold climate is defined by a combination of factors that create a unique set of building design challenges. These factors include temperature, frozen precipitation, wind, humidity, thermal comfort, thermal envelope/enclosure, maintainability, permafrost and frozen ground and remote building locations.

Following are tips from several committee members for designing, operating and maintaining buildings and systems in cold climates:

What happens when building air exfiltrates a building envelope in cold weather is similar to what happens in cooling coils in hot humid weather – understanding psychrometrics is essential to understanding building envelope performance in cold climates.

The colder the climate, the more important it is for critical equipment to be sheltered – you can’t expect service personnel to properly repair HVAC equipment in a winter blizzard.

In extreme climates, windblown snow takes on a consistency similar to sand and requires special design techniques to keep it from getting into the HVAC intakes.

The manual also covers the design impacts from non-mechanical components of a facility such as the building envelope and roof construction. For instance, snow and ice sliding down of a metal roof can shear off mechanical roof penetrations as well as hoods on the exterior wall below.

A building envelope must address all modes of heat loss to be truly efficient; ignoring any mode of loss may lead to excessive thermal transfer.

Frost can be devastating for HVAC equipment, blocking intake hoods, filters, coils, etc.

Design out cold bridges in both building fabric and engineering penetrations.

Avoid or minimize any external service pipe runs.

Locate air inlets and exhausts in locations that avoid snow drift and blockage.

Ensure condensing pipes never freeze and block.

Provide safe access to roof mechanical plants in all weathers – frozen roof surfaces can be a hazard.

Frank Mills, who helped write the guide, noted that the book applies to all climates that have a heating season, not just the very cold ones.

“We do cover the extreme cold climates very well, but we also have very useful information for any buildings which have heating for part of the year,” he said. “This covers a lot of climate regions – including Europe where I am.”

In addition to cold-climate considerations in HVAC calculations and system design, this book’s chapters cover sustainability, controls, building design, and commissioning, all from this distinctive climatic perspective. The book also includes an appendix with seven case studies of buildings located in cold and extreme cold climates. These buildings are leaders in their field with regard to both efficiency and cold-climate design.

The cost of the “Cold-Climate Buildings Design Guide” is \$90 (\$77, ASHRAE members).

To order, visit [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore) or contact ASHRAE Customer Contact Center at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide) or fax 678-539-2129.



### Reduce Your Laboratory's Energy Footprint

ASHRAE Laboratory Design Guide: Planning and Operation of Laboratory HVAC Systems offers comprehensive guidance to reduce a laboratory's energy footprint while ensuring safety, providing good comfort and indoor air quality, and protecting the integrity of laboratory experiments. This second edition gives engineers, owners, and system operators the design and control strategies they need when planning, designing, and operating laboratories.

The guide is organized around a typical project, progressing through the basic steps of planning, design, construction, and operation and maintenance. It offers basic background information on laboratories, including their various types and the typical equipment found in them, to provide a basic understanding of laboratories and their importance as well as their different functions and needs.

Softcover / 328 pages  
\$117 (ASHRAE Member \$99)  
Now in the ASHRAE Bookstore

Included with this Guide are expanded web links to industry standards and resources as well as design tools that help illustrate the features of laboratories and provide practical aids for design.

For more information, please visit [www.ashrae.org/Lab2nded](http://www.ashrae.org/Lab2nded)

### Updates on ASHRAE Standards, Publications Featured in 2016 Winter Conference Tech Program

ATLANTA – The most up-to-date information on the standards that guide industry technology, along with presentations focused on upcoming ASHRAE publications, is featured at the ASHRAE 2016 Winter Conference.

The ASHRAE Conference takes place Jan. 23-27, Orlando Hilton, while the ASHRAE co-sponsored AHR Expo takes place Jan. 25-27, next door at the Orange County Convention Center. To register for the ASHRAE Conference, which includes free access to the Expo, visit [www.ashrae.org/orlando](http://www.ashrae.org/orlando). Information about the Expo can be found at [www.ahrexpo.com](http://www.ahrexpo.com).

The Technical Program features eight tracks, some 100 sessions and more than 300 speakers. It runs Sunday, Jan. 24 through Wednesday, Jan. 27, and offers over 200 Professional Development Hours, as well as Continuing Education Units, which can be applied toward a Professional Engineering license in many states, including the state of Florida.

Among the sessions are several providing updates on ASHRAE and industry standards and publications.

"Since ASHRAE is the leader in HVAC&R standards and guidelines, these sessions are a hot topic for attendees," Jennifer Leach, Conference chair, said. "This year, we will focus on some international standards like EU Qualicheck and the International Institute of Refrigeration as well as ASHRAE standards related to environmental quality, energy and Legionella. Attendees can use the information shared through the Technical Program while walking the Expo floor to see how it directly impacts the development of technology."

Among the standards addressed in the program are ANSI/ASHRAE Standard 205, Standard Representation of Performance Simulation Data for HVAC&R and Other Facility Equipment; ANSI/ASHRAE Standard 188-2015: Legionellosis: Risk Management for Building Water Systems; the ICC/ASHRAE 700 National Green Building Standard; the International Green Construction Code (IgCC) sponsored by ASHRAE, the American Institute of Architects, the International Code Council, the Illuminating Engineering Society and the U.S. Green Building Council and its inclusion of ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1, Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings; and bi-national ground loop heat exchanger/ground-source heat pump standards.

Publication updates include the Combined Heat and Power Design Guide (slated for publication in May 2015), the Cold Climate Buildings Design Guide, and the ASHRAE Survival Guide to Design-Build.

The Conference also features several innovative sessions in the Cutting Edge and International Design tracks as well as residential programs, numerous refrigerant update presentations, especially on low global warming potential, and fundamentals, applications, systems and equipment sessions.



**2016 ASHRAE Winter Conference**  
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