



ASHRAE Ottawa Valley Chapter

- DATE:** **Tuesday April 19, 2016**
(Tech Session: 4:30, Social: 17:30, Dinner: 18:30, Program: 19:30)
- LOCATION:** **Algonquin College Restaurant International**
1385 Woodroffe Ave, Building H, Room H100
- THEME:** **Research Promotion**
- PROGRAM:** **Design in High-rise Buildings**
- SUMMARY:**

Many factors can influence building design choices. This presentation will compare mechanical building design in urban Canada, (specifically Toronto and surrounding region) with the Middle East, (specifically Dubai and the Gulf). The study sample will include mid to high rise residential, hospitality and commercial facilities.

SPEAKER: **Chris Pal, Principal, NORR**

Chris Pal is director of engineering at NORR architects and engineers and has over 35 years' experience on a wide variety of domestic and foreign projects in mechanical systems design, construction and industry. He is an expert in heating, ventilating and air conditioning systems, plumbing, life safety systems, controls and industrial process services. Chris has been stationed in Europe and in the Middle East over his career and has been exposed to building practices and design drivers that are often quite different than here in Canada. Chris has been active in sustainable design and is a LEED® Accredited Professional.

TECHNICAL SESSION: Legionella by Lan Chi Nguyen Weekes

Legionnaire's disease is again a topic of great interest to IAQ practitioners as the incidence of this disease worldwide is on the rise. Several professional organizations have recently produced or re-issued guidance documents on the design, operation and maintenance of building water systems in order to prevent the growth of Legionella bacteria. Proper operation and maintenance of building water systems and the creation of a Legionella Bacteria Control Management Plan (LBCMP) are keys. This presentation will provide experienced tips and examples on how to inspect building water systems and how to evaluate the risk for Legionella contamination within these systems.

Ms. Lan Chi Nguyen Weekes, P.Eng., is a partner at InAIR Environmental Ltd., an IEQ consulting firm in Ontario, Canada. Over the years, she has been involved in various IEQ projects most recently with Legionella Bacteria Risk Assessments in buildings. As well, she has been presenting and publishing on this topic

Space is limited so please register online at:
<https://ashraeottawa.simplesignup.ca/en/610/index.php?m=eventSummary>

Chapter Members: \$45.00 Guests: \$65.00
Student Members: \$30.00 Life or Fellow: \$45.00

President's Message

Dear members,

We are down to the final stretch of our **ASHRAE** year, with **two** more meetings to go. I hope that you have enjoyed the year so far and have taken advantage all that the chapter had to offer. I have to tell you, that the start of spring is my favorite time of year. The weather is getting warmer and we will be leaving the cold and snowy days of winter behind. It's also time to start thinking about taking out your golf clubs out of storage.

March was a very busy **ASHRAE** month. We successfully hosted the **3 events** that were extremely well attended; the curling bonspiel, the technical seminar hosted by **Judy Jeske**, and the **ASHRAE career fair** hosted at **Carleton University**. I would like to thank all those who helped organise these events as well as all those who attended.

At the upcoming **April meeting**, **Lan**

Chi Nguyen will be hosting a technical session on proper operation and maintenance of building water systems and the creation of a **Legionella Bacteria Control Management Plan (LBCMP)**. This presentation will provide experienced tips and examples on how to inspect building water systems and how to evaluate the risk for Legionella contamination within these systems.

Our program topic for the evening will be presented by **Chris Pal**, director of engineering at **NORR** architects and engineers. His topic will focus on comparing mechanical building design in urban Canada with the Middle East, (specifically Dubai and the Gulf). The study sample will include mid to high rise residential, hospitality and commercial facilities.

The theme of the meeting is **Research**. Our research chair **Abbey Saunders** and her committee have done a phenomenal job so far with the campaign,



President
Georges Maamari

2015-2016

OVC President

BPA

E-mail: gmaamari@bpa.ca

however we still have quite a long way to go to achieve our objective. If you have yet to donate, please contact Abbey or anyone on the RP committee to donate.

Finally, the nominating committee will be announcing the slate of offices and directors up for election to next year's Board, in addition, we will be accepting nominations from the floor for these positions. So if you have that right person in mind to promote and move the Chapter forward -now is the time to speak.

Best regards,
Georges Maamari, P.Eng
2015-2016 OVC President

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ASHRAE

What You Missed

The sixth meeting of the program year took place at the **Studio 'D' at Algonquin College**. The meeting was called to order by **President Georges Maamari** at 6:30 PM and attendees were seated.

The business session commenced with President Georges Maamari introducing the **Board of Governors and Executive**, followed by **Daniel Redmond** introducing the guests for the evening. **Celine Baribeau** then introduced the new members to the chapter.

Adam Graham talked about the recent curling bonspiel which saw eight full sheets of curling excitement. The bonspiel was won by **Longhill Energy** and proceeds from the event were put towards the **ASHRAE** scholarship and towards a local charity. **Chris Healey**, **Christine Kemp** and **Stan Millross** were very helpful in putting together another fantastic event this year.

President Georges Maamari talked about the cancelled **February meeting**. Due to an extreme snow storm, Algonquin closed the campus which resulted in the cancelled meeting. Rescheduling was investigated however it was very difficult to reschedule on such short notice. The speaker will be brought back in the 2016-17 program year. As the February meeting was cancelled, the theme for the **March meeting** was shared between **Student Activities** and **CTTC**.

Andrew Klassen discussed the **CTTC Technology Awards**. The awards are currently underway and the deadline for chapter submission has been extended a couple of weeks until the end of **March**.

President Georges Maamari introduced **Adrienne Mitani** and **Robin Ellis (RVC Student Activities)** to discuss Student Activities (SA). Adrienne discussed the student event held at Carleton **March 14** that was very well attended and attendees saw **Bill Bahnfleth** speak about IAQ. The annual career fair is being held next week and sponsorship is still available. Student Activities is also looking for old **ASHRAE handbooks** for the Student Chapters.

Robin Ellis (RVC SA) talked about networking and the importance of students in **ASHRAE**. Robin networked as a student in ASHRAE many years ago at the Toronto chapter. ASHRAE networking was very important to her success. ASHRAE benefits by providing encouragement and providing opportunities for students. Students are the key to ASHRAE succession planning and to the industry development. AMI's work was commended and the OVC was thanked for the support it provides to student members.

Liam O'Brien from **Carleton University** has won a grant from ASHRAE for research and **Adriane Mitani** presented Liam with a certificate for his award.

Liam O'Brien discussed the award that he won. He has now won the award five years in a row. Liam expressed his appreciation for the assistance that ASHRAE has provided. Liam uses **Carleton University** as a living lab and has built building information models for many of the buildings. Some of the rooms are "off the grid" and the graduate students have access to adjust and test the BAS in different configurations. This year's grant funds research in energy and mass balance at the office level using existing sensor technology. The research has also been incorporated at the campus level to help understand where energy expenditures are stemming from. Last year, the grant funded development of a heliodon to assess daylighting and solar studies and to enable study into different solar shading devices. ASHRAE has been very instrumental in the success of Liam and his team.

President Georges Maamari introduced the two tabletops. **Jeremy Strong** from **TRANE** discussed the chiller products that TRANE has to offer and **Steve Moons** from **Total HVAC** discussed the chiller products that Total HVAC represents along with chilled beams.

Bob Kilpatrick spoke about the upcoming nominations. It is time to think about the longevity of the chapter and the succession plan. Bob discussed that the executive



Secretary
Daniel Redmond
2015-2016
OVC Secretary
Carleton University

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team is a progression arrangement. Bob is looking for nominations for the position of **Secretary** for the next year. The restrictions are that the nominee must agree and be a member in good standing. There could also be positions available on the **BOG**. The executive and the nominations committee are currently reviewing the positions available. The nominations committee aims to make an announcement of the proposed board at the April meeting and then installation of the new board will occur in **May**.

President Georges Maamari announced that the Research Promotion (RP) campaign is underway and support is much appreciated. President Georges Maamari announced that the RP campaign is raffling tickets for an upcoming Senators game next week. Following the business session, attendees enjoyed a buffet dinner.

After dinner, the Research Promotion committee raffled of the four tickets to an upcoming NHL hockey game featuring the **Ottawa Senators and the Washington Capitals**. The tickets were donated by Trane and raised \$750 for **ASHRAE RP**. The tickets were won by **Michel Arial**.

Next, the evening program commenced at 7:45 PM with President Georges Maamari introducing the speaker.

Mr. Bill Bahnfleth is the former president of **ASHRAE Society** and is an **ASHRAE Distinguished Lecturer**. Mr. Bahnfleth introduced his presentation on **Variable Primary Flow Chilled Water Systems**. A quick highlight of the presentation is provided below:

The evolution of chilled water systems has seen different strategies to provide chilled water and the different systems each have advantages and disadvantages. The

traditional Primary/Secondary (P/S) approach the primary flow through the chillers is kept constant under the belief that that chillers need a constant flow through them to operate optimally. Over the past fifteen years, variable primary systems have been studied and implemented in which the flow through the chillers is not constant. Many studies indicate approximately 5% capital cost reduction and 5% energy operational savings however Variable Primary Flow (VPF) systems

appear to be best suited to applications with a few chillers in the plant (multiple chillers, but still a small number), plants with significant base loads (high climate and occupancy loads increase savings), systems tolerant of chilled water temperature fluctuations and systems that are run by operations staff capable of increased system complexity over P/S systems.

Mr. Bahnfleth provided many resources for attendees looking for

more information about VPF including Steve Taylor, Moses, Eppelheimer and Schwedler and Bradley.

Following the presentation, **Mr. Bahnfleth** opened the floor up to questions. **President Georges Maamari** then thanked him and presented him with a gift. The meeting was adjourned at 9:25 PM.

ASHRAE Technology Award

Are your engineering projects innovative? Do you want to identify yourself as a leader in the HVAC&R industry? Would your clients be interested to know that you are innovative? If so, then the **ASHRAE Technology Awards** program should be of interest to you.

The **ASHRAE Technology Awards** program recognizes successful applications of innovative design, which incorporate **ASHRAE** standards for effective energy management, indoor air quality, and good mechanical design.

The purpose of the **ASHRAE Technology Awards** program is threefold

1. To recognize **ASHRAE members** who design and/or conceive innovative technological concepts that are proven through actual operating data.
2. To communicate innovative systems design to other **ASHRAE members**
3. To highlight technological achievements of **ASHRAE** to others, including associated professionals and societies worldwide, as well as building and facility owners

Projects submitted should have been in operation 9 months and there are six main categories to which applications may be submitted, as follows:

Link 1: <https://www.ashrae.org/membership--conferences/honors--awards/technology-awards-program-overview>

Link 2: <https://www.ashrae.org/File%20Library/docLib/HonorsandAwards/AwardDocs/Tech-Award-Application-Short-Form-June-2014.pdf>

- I. Commercial Buildings (New, Existing and Retrocommissioning)
- II. Institutional Buildings (New, Existing and Retrocommissioning)
 - Educational Facilities
 - Other Institutional
- III. Health Care Facilities (New, Existing and Retrocommissioning)
- IV. Industrial Facilities or Processes (New, Existing and Retrocommissioning)
- V. Public Assembly Facilities (New, Existing and Retrocommissioning)
- VI. Residential (New, Existing and Retrocommissioning)

Winners will be recognized at the chapter level and may be able to submit their project for a regional or even societal award to gain exposure well beyond our local chapter.

The **ASHRAE** website has plenty of helpful information to guide you during the application process. The technology awards section of the **ASHRAE** website is located at the [link 1](#) below.

The deadline for application to Chapter is **April 20th, 2016**. Submission at the chapter level is not very complicated or time consuming. The following is all that is required for submission:



Committee Chair
Andrew Klassen
2015-2016
OVC CTTC Chair
Trane

E-mail: andrew.klassen@trane.com

1. Submission of the short form application form (please see example below)
2. Provide a system schematic/diagram not larger than 11" x 17" in size
3. Attach a brief narrative (maximum of 2 pages)

For further information please find a fillable version of the application form at the end of this Newsletter and on the Society webpage at the [link 2](#) below.

If you have any questions or concerns, please don't hesitate to contact the **OVC CTTC Technology Awards Team:**

- **Andrew Klassen** (andrew.klassen@trane.com)
- **Michael Grant** (Michael.Grant@trane.com)
- **Daniel Redmond** (redmondan@mmm.ca)

Thank you and I hope you realize that the work you do every day is worthy of recognition. Please consider submitting your projects for an **ASHRAE Technology Award**.

2015-2016 Research Promotion Campaign

Well everyone, I am happy to report that so far we have managed to keep up the momentum from last year's campaign. We are more than half way through our **ASHRAE** season and we have raised approximately **56%** of our **2015-2016 RP Campaign Goal** of \$27,000. Great work everyone, and let's keep a solid run going for the remainder of the 2016 ASHRAE season! Remember no donation is too small, and all money raised goes to **ASHRAE Research Canada**.

The **March** program meeting RP raffle tickets for the upcoming **Washington v. Ottawa** game raised a total of \$750 for ASHRAE Research. AMAZING! A special thanks to **Trane Ottawa** for donating the tickets. Congratulations

to District Manager of **Daikin Applied Canada Inc. Michel Ariel** winner of the tickets.

A list of current **2015-2016 RP Campaign** donors will be updated for each monthly newsletter, so donate quickly to see you name appear!

Two of the easiest ways to make your donation to the **2015-2016 RP Campaign** are by clicking either of the links below.

However, should you wish to make you donation using cheques, please make all cheques payable to **ASHRAE Research Canada**. My contact details are shown below, but I will gladly make arrangements to pick-up any cheques if need be.



President-Elec Abbey Saunders
2015-2016
Research Promotion
National Research Council Canada

E-mail: abbey.saunders@nrc-cnrc.gc.ca

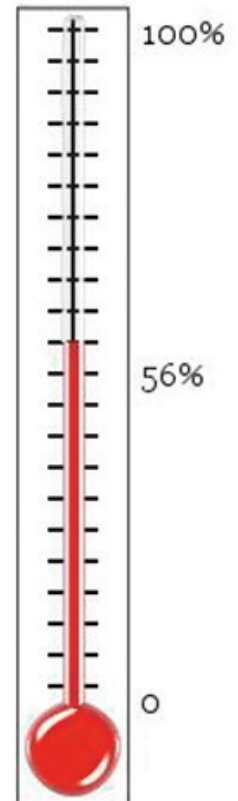
Again, I can't say this enough, thanks for your continued support for **ASHRAE Research Canada!**

Abbey Saunders
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Engineering Services, Administrative Services and Property Management Branch
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ASHRAE OVC link: <https://ashraeottawa.simplesignup.ca/en/171/index.php?m=eventsList>
ASHRAE Society link: <https://xp20.ashrae.org/secure/researchpromotion/rp.html>

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Student Activities

Ladies and Gentlemen,

The **Carleton ASHRAE Student Chapter** has a very successful presentation on **March 14th** by the **ASHRAE Distinguished Lecturer Bill Bahnfleth**. He spoke on "Integrating Indoor Air Quality and Energy Efficiency in Buildings" and the balancing act that takes place to not negatively affect indoor air quality when implementing energy saving.

The **2016 ASHRAE Career Fair** was **Tuesday March 22nd**, at **Carleton University**. It was well attended by over **200 students** from **Carleton**,

uOttawa and **Algonquin College**.

Thank you to the employers who participated:

Applied Energy Systems, Algonquin College, Black and MacDonald, BPA, Engineered Air, HTS, Jp2g, Longhill Energy, Master Group, Norr, Nortec, Regulvar, Siemens and Stantec.

We were also supported by our event sponsors: **Airtron, E.H. Price, LRL, Modern Niagara, Smith and Andersen** and **Total HVAC**.

Do you have old **ASHRAE Handbooks** piling up in your office?



Committee Chair

Adrienne Mitani

2015-2016 Student

Activity Chair

Smith and Andersen

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The student Chapters are looking for handbook donations. Any ASHRAE or general HVAC handbooks, guidelines or old standards.

Please contact me about the books you are willing to donate.



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News Update

ASHRAE Funds 24 Undergraduate Projects; Aerial Vehicle for Energy Audits

ATLANTA – Engineers will get a bird's eye view of the energy use of building envelopes under a project funded through an **ASHRAE Undergraduate Senior Project Grant**.

This year, **24 schools** from around the world were awarded grants. The grants, totaling some **\$110,000**, are awarded by **ASHRAE** to colleges and universities worldwide to promote the study and teaching of **HVAC&R**, encouraging senior undergraduate students to pursue related careers.

The grants are used to design and construct projects, such as The **University of Alabama's** proposal to use an unmanned aerial vehicle to document building energy audits. The project notes that while building audits are a key process for determining building efficiency, performance and faults, audits require knowledge of the internal building and energy system and the external building envelope, which can present a challenge.

"The vehicle would be used to quantify envelope characteristics of hard-to-reach and large regions on modern buildings," **Zheng O'Neill**, Ph.D., of the **Mechanical Engineering Department** and advisor of the project, said. *"The information will provide engineers with systematically measured control volume characteristics. For example, infrared thermal camera data will provide information of building envelope temperature, which can be used for building infiltration diagnostics."*

She will work with **Charles O'Neill** of the **Aerospace Engineering and Mechanics Department** for the vehicle development and flight tests.

The goal of the project is to build a co-robot (human controlled with robotic assistance) quadcopter with onboard sensors including infrared temperature camera, visible light camera, heat flux sensors, direct temperature probes and location and orientation.

Other **ASHRAE** grant recipients are:

- **Ryerson University**, Toronto, Ontario, Design and Prototyping of a Heat Transfer Enhanced Hybrid Air Based Building Integrated Solar Photovoltaic/Thermal Collector for Net Zero Energy Building Applications
- Sinclair Community College, Dayton, Ohio, Chiller Control Training Boards
- Lamar University, Beaumont, Texas, A Laboratory System for Evaluating Cooling Systems in Consumer Electronic Devices
- **University of Windsor (Ontario)**, A Novel Membrane Absorption Heat Pump
- University of Oregon, Eugene, Campus Audit Squads for Energy (CASE) Studies
- **Carleton University**, Ottawa, Ontario, Evaluation of Office-Level Energy Consumption Using a Sparse Sensor Network
- University of Alabama at Birmingham, Cooling and Electricity from Renewable Compressed Air
- Purdue University, West Lafayette, Ind., HVAC Heat Transfer Experiment and Modelling
- De La Salle University-Manila, Design, Fabrication and Testing of a Laboratory Set-up of an Aqua-Ammonia Absorption System
- University of Santo Tomas, Manila, Philippines, Development of an Ice Storage Air Conditioning System as Laboratory Equipment for Engineer Students of University of Santo Tomas
- Southern Illinois University, Carbondale, Solar Energy PCM Storage combined with Solar-Powered Water Purification
- Mapúa Institute of Technology, Manila, Philippines, Improvement of An Indoor Environmental Quality Laboratory
- Mapúa Institute of Technology, Manila, Philippines, Development of a Laboratory Set-Up of a Geothermal Air-Conditioning System



Program
Jacob Hough
2015-2016 Program
Committee Chair
Total HVAC

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For more information on the grant program, visit:

www.ashrae.org/grants.

ASHRAE will begin accepting applications for the **2016-17** program in **August 2016**, with a **December 2016** final deadline.

ASHRAE Webcast Registration Opens March 21

ATLANTA – Registration for the **2016 ASHRAE** Webcast, *"Making Net Zero Net Positive: Solving the Efficiency & Cost Paradox,"* opens today, **March 21**, at www.ashrae.org/webcast. There is no fee for registration.

The webcast will broadcast live on **April 21, 2016**, from 1-4 p.m. EDT. This webcast is offered by **ASHRAE's Chapter Technology Transfer Committee (CTTC)**.

"The presenters will discuss the primary technical and financial challenges in achieving net zero buildings," **Nathan Hart**, chair of the CTTC Webcast Ad Hoc Committee, said. *"Viewers will learn the importance of, and why we should strive for, net zero in the built environment. The focus will be on realistic solutions and methods of energy conservation."*

Webcast presenters are:

- 2015-16 ASHRAE President David Underwood, P.Eng., CPMP, Oakville, Ontario, Canada
- Marc Brune, P.E., senior associate and mechanical engineer, PAE, Portland, Ore.
- Philip Macey, AIA, national director of collaborative delivery, JE Dunn Construction, Denver, Colo.
- Paul Torcellini, Ph.D., P.E., principal engineer for commercial building research, National Renewable Energy Laboratory, Golden, Colo.

The Webcast has been approved for

three **HSW Learning Units** (LU/HSW) by the **American Institute of Architects** (AIA) and three **Continuing Education Hours** (CEs) by **GBCI**. The state of **New York** also recognizes **AIA** course approval.

Visit www.ashrae.org/webcast for more information on the webcast and continuing education credits, as well as **ASHRAE net zero resources**.

Not able to view the live webcast? Register to take advantage of the free online on demand webcast, which allows viewers unlimited access to the webcast online until **May 6, 2016**. Registration is required to view the on demand webcast.

ASHRAE Grant-in-Aid Funds Human Thermal Comfort Database Project

ATLANTA – Creation of a database to help better understand human thermal comfort in residential and commercial buildings is being funded through an **ASHRAE** grant program.

Veronika Foldvary, a visiting Ph.D. student at the Center for the Built Environment (**CBE**), **University of California**, Berkeley, is one of 18 students who will receive a grant through the **ASHRAE Graduate Student Grant-In-Aid Award Program**, which is designed to encourage students to continue their education in preparation for service in the **HVAC&R** industry. The grants, totaling **\$180,000**, are awarded to full-time graduate students of ASHRAE-related technologies.

The project would identify previous thermal comfort and occupant responses in residential and commercial buildings worldwide. Foldvary would collect that data to construct an international database, which would include measurements of all the physical conditions affecting thermal comfort (air temperature, humidity, air movement, radiant temperature and occupant clothing and metabolic rate) plus subjective surveys (thermal sensation, comfort,

perceived air quality and wherever possible, adaptive behavior and interaction with building controls).

"The database would be used to analyze trends in thermal comfort and behavior patterns and evaluate current comfort prediction tools, as well as their relevance to different building types, climates, cultures and demographics," Foldvary said. "We would convene discussion groups to address issues of data analysis and representation to ensure its usefulness to the global research community. The analysis will provide the evidence base for developing improved international standards."

Grant recipients are:

- Paul Armatis, Oregon State University, Experimental Validation of Models for Heat and Mass Performance Evaluation of Membrane Based Energy Recovery Devices
- Daniel Fernandes Bacellar, University of Maryland, Airside Heat Transfer Augmentation Using Multi-Scale Analysis and Shape Optimization for Compact Heat Exchanges with Small Hydraulic Diameters
- Jennifer Date, Concordia University, Model-Based Control of Convectively Conditioned Thermal Zones for Energy and Load Management
- Amin Engarnevsi, University of British Columbia, Effect of Humidity, Temperature and Particle Fouling on Permeation Properties of Polymer Membranes
- Veronika Foldvary, University of California, Thermal Comfort Database for Commercial and Residential Buildings
- Seyed Ghahfarrokhy, University of Toronto, Development and Validation of a Novel Approach to Quantify the Impact of Human Exposure to Particle-Bound Contaminants in the Indoor Environment
- Sara Gilani, Carleton University, Occupant Modeling for Prediction

of Comfort and building Energy Performance in Office Spaces

- Kristen Jaczko, Queen's University in Kingston, Advanced Integrated Energy Systems for High Performance buildings
- Leigh Lesnick, University of Texas at Austin, Characterization of Air Mixing with Different HVAC Systems and Assessment of Potential for Airborne Infectious Disease Transmission in Schools
- Hongwan Li, University of Texas Austin, Evaluation of HVAC Filters a Sampling Mechanism for SVOC Pollutants in U.S. Schools
- Ryan Milcarek, Syracuse University, Flame Assisted Fuel Cell for Micro Combined Heating and Power Systems; also receives the Grant-In-Aid Life Member Club grant designation given to the highest rated applicants and supported by a financial contribution from the club.
- Fuxin Niu, University of Alabama, Uncertainty Quantifications and Operation Optimization of Buildings as Virtual Batteries for the Grid with High Penetrations of Renewables
- Sukjoon Oh, Texas A&M University, Quantifying the Energy Savings Benefits of Smart Meters and Home Automation for Single Family Residences
- Parichehr Salimifrad, Pennsylvania State University, Transport of Indoor Biological Dust
- Yi Wang, National University Singapore, Effectiveness of Ultraviolet Germicidal Irradiation Systems in Air Handling Units in Enhancing IAQ and Energy Performance; also receives the Grant-In-Aid Life Member Club grant designation given to the highest rated applicants and supported by a financial contribution from the club.
- Jiu Xu, University of Illinois at Urbana-Champaign, Oil Separation Compressors

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 local **OVC ASHRAE** meetings? The **OVC** meetings provide a captive audience in the industry and

exposure to 60+ people.

The featured table-tops for the April 15th meeting are **HTS**, **Belimo** and **EH Price**.

BELIMO®



ZoneTight Pressure Independent Zone Valve (PIQCV)

The **PIQCV** offers all the advantages of **Pressure Independent Characterized Control Valve (PICCV)** but in an ultra-compact configuration. The **PIQCV** combines a differential pressure regulator with a 2-way control valve to supply a specific flow for each degree of ball opening regardless of system pressure fluctuations. The valve performs the function of a balancing valve and control valve in one unit.

- Smallest pressure independent characterized ball valve in the market.
- Actuator runs at 0.3 W saving energy and transformer power.
- Flow is adjustable at the actuator and always perfectly balanced.
- Permits PIV installation in tight spaces

e.h. price



SkeleCore Pull-Tight is a **Fabric Retention and Suspension System** that utilizes a combination of **Internal Hoops and Tensioning Baskets** to help maintain fabric shape and retention. Different from FTS, Pull-Tight is suspended from either a Tension Cable or Track Suspension System and is tensioned "externally" utilizing a Tension Cable (or Track) Lock. Pull-Tight improves start-up performance and aesthetics when compared to multiple row, horizontal suspension systems.

LabSox Products are **Textile Air Dispersion Devices** designed for laboratory environments (vivarium's, pharmaceutical, research education, etc.) in critical applications commonly associated with a fume hood or other airflow sensitive equipment (scales, laser, microscope, etc.). LabSox are also applicable to industrial or commercial kitchen applications. Airflow in laboratories is a critical design factor as turbulent air can negatively affect research or even cause hood failure resulting in a compliancy issue. The LabSox advantage is clear as air passes through specialized fabric panels resulting in uniform, low velocity, radially diverging air patterns with little, if any, turbulence. LabSox products are not only ideal for labs of the future, but can be easily retrofitted to resolve air flow issues in existing facilities.



Omega is an industry leading designer and manufacturer of vertical stacked heat pumps. Unique products available include the Gold Series and the newer hybrid and integral ERV/HRV product lines. All of these products were designed with performance, installation flexibility, cost, and most importantly, sound in mind. Visit www.omega-heatpump.com for more information.

HTS is your local **Omega Heat Pumps** representative as well as that of several other product lines to offer a complete system solution for high rise residential and commercial buildings. HTS is one of the largest independent built-to-order commercial and industrial, full service HVAC systems provider in North America. We offer comprehensive support to building owners, architects, consulting engineers and contractors throughout the process of building design and construction.



Membership Update

The **Ottawa Valley Chapter** would also like to introduce and welcome the following new member:

Mr Brent Moore
Mr Jordan Giberson
Mr Omar Daher
Mr Lokesh Ekanthappa
Mr Colin Cameron


Looking forward to seeing you at the next **ASHRAE** event!



Committee Chair

Celine Baribeau
 2015-2016
 Membership
 Committee Co-chair
BPA

E-mail: cbaribeau@bpa.ca

<p>Smith + Andersen</p> <p>David Eastwood P.Eng. Principal 613 2301186 ext. 403 david.eastwood@smithandandersen.com</p> <p>1600 Carling Avenue Suite 530 Ottawa Ontario K1Z 1G3 t 613 2301186 f 613 2302598 smithandandersen.com</p> <p>Ottawa Vancouver Toronto Edmonton Dubai Calgary</p>	<p>Stantec</p> <p>David Yin, P.Eng., LEED AP Senior Associate, Buildings Engineering</p> <p>Stantec 400 - 1331 Clyde Avenue, Ottawa ON K2C 3G4 phone: (613) 725-5573 cell: (613) 323-4964 fax: (613) 722-2799 david.yin@stantec.com</p>	<p>TAMCO INNOVATIVE DAMPER PRODUCTS</p> <p>Experience the true meaning of service and quality</p> <p>Frank Picchione Regional Sales Manager</p> <p>Tel: 800-561-3449 Cell: 514-781-8381 Fax: 800-668-8476 frank@tamcodampers.com www.tamcodampers.com</p> <p>TAMCO locations in Ottawa, Ontario and Nashville, Tennessee.</p>
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YEA Leadership

Hi OVC!

I would like to thank all members who attended the **March YEA** event. The last few events have really started to show the growing support from the younger members and it's great to see.

In collaboration with the students activities career fair I was able to meet a few students to who plan to become **ASHRAE** members.

Thanks again and see you at the April meeting!



Committee Chair

Joe Della Valle
 2015-2016
 YEA Chair
Walmar Ventilation

E-mail: joedellavalle@walmar.net

Curling Re-cap

The annual **ASHRAE Curling Bonspiel** took place this past **Thursday March 10** and the **Nepean Sportsplex**. We had **16 teams** entered and by all accounts, everyone had a good time. The winning team, entered by **Longhill Energy** consisted of: **Marc Parent, Ross MacLaren, Larry Branson** and **Mathieu Coulombe**.

These skilled gentlemen took home the hardware and a nice bottle of wine for their efforts.

As in past years, going back to **2010**, we have donated money to what is deemed a worthwhile cause, mostly

local charities, for example, Roger's House, The Salvation Army, The Ottawa Food Bank, to name a few, this year we were able to donate : **\$1,280.00**, this brings the total to **\$11,190.00** since we started **7 years** ago. As well, we ran a raffle during the dinner part of the evening, raising approx **\$290.00** for **ASHRAE Research** while a few lucky folks in the crowd walked away with some nifty prizes, including Brier Tickets, KEG Gift Cards, etc.

I would like to thank **Capone's Catering** for a great meal and **Stan Millross** for being our Emcee for the evening, thanks also to **Christine**



Committee Chair

Chris Healy

Walmar

E-mail: ChrisHealey@walmar.net

Kemp, Adam Graham and **Peter Baird** for their assistance during the evening. We look forward to seeing everyone next year and eagerly await spring and the annual **ASHRAE Golf Tourney** that comes along with the nice weather, it is scheduled for **June 21**, once again at **The Marshes Golf Club**.



March Seminar Wrap-up

Despite being **St. Patrick's Day**, the afternoon of **March 17th** the **ASHRAE OVC** hosted our second seminar of the season at the **Master Group** classroom. The seminar was a huge success with over **30** participants registered. Participants included a good mix of consulting engineers, architects and various federal department property management representatives.

Living and working in the **Ottawa** we

all often encounter situations where we are working with the **NBC**, the **OBC** or the **QCC**. Knowing which Code is applicable, understanding how the Codes are mandated, compliance options, the differences between the OBC and the NBC and upcoming changes to the **2015** versions of the NBC and OBC were topics of discussion.

The interactive seminar was well received by participants and



President-Elec Abbey Saunders

2015-2016
Research Promotion
National Research Council Canada

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ASHRAE OVC would like to extend a special thanks to **Judy Jeske** of **Morrison Hershfield** for sharing her expertise and experience.

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RANDY CAVILL, C.E.T.
President

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VENTILATION & FILTRATION PRODUCTS

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.

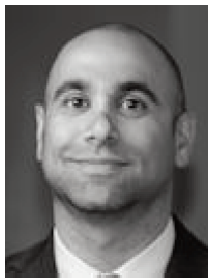
Rates for career opportunities ads are as follows:
 Chapter Member: \$50/month
 Non-member: \$250/month

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 online or for payment and other information contact **Adam Graham** at Adam.Graham@hts.com

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.



President
Georges Maamari
 2015-2016
 OVC President
BPA

E-mail: gmaamari@bpa.ca

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 \$250.00 for the year. Please contact **Rod Lancefield** at rod@htseng.com for more details.






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E-mail: rod@htseng.com

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