# Capital Communiqué

2014 November Edition

# ASHRAE Ottawa Valley Chapter

**DATE:** **Tuesday November 18, 2014**
Technical Session: 16:00, Social: 17:30
Dinner: 18:30, Program: 19:30

**LOCATION:** Algonquin College Restaurant International
1385 Woodroffe Ave, Building H, Room H100

**PROGRAM:** **Seismic Guidelines - Panel Discussion**

Join us for a lively discussion on seismic guidelines moderated by our ASHRAE President Steve Moons. We're excited to have a diverse panel to round out our discussion from four different perspectives.

**SPEAKERS:**

Mechanical Contractor: **Cathy Godin**
SK Sheet Metal – Project Manager

Equipment Supplier and Sales: **Richard Lévesque**, ing., P.Eng., LEED AP
HTS - Seismic Restraint / Structural Engineer

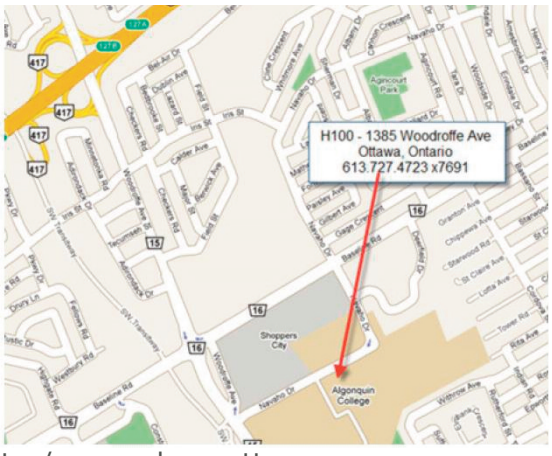
Mechanical Consultant: **Ross McIntyre**, P.Eng.
Goodkey, Weedmark & Associates Limited - Principal

Seismic Consultant: **Stacie Peron**, Ph.D., P.Eng.
Brownstone Engineering – Seismic Restraint / Structural Engineer

## TECHNICAL SESSION:

This month's technical session will continue on current HVAC equipment technology. It will include information on currently available technology on gas burners for direct and indirect fired product, as well as high-efficiency condensing type burners. This session will be useful for any design consultant or contractor that wishes to learn more about the current technology in HVAC equipment. This will be presented by ASHRAE Past President **Glenn MacLean** of **Engineered Air**.

## DIRECTIONS:




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

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

# President's Message

**President & CRC Delegate**
***Steve Moons***
2014-2015
OVC President
***Total HVAC***
**E-mail:** *Stevem@totalhvac.com*

November is upon us, and as the leaves fall and the temperature drops, we are reminded of the ultimate sacrifice that so many Canadians have made in the past as part of **Canada's Armed Forces**. I feel this day is a little more poignant this year given the recent events that shook the capital and drove home how often we take our safety for granted. We are rarely touched so locally by international conflicts, and it should serve as a reminder that there are places in the world where gunshots in the street are commonplace, and personal safety is an hour-by-hour concern. We are fortunate indeed to live our lives with rarely a thought to if our loved ones will return at night safely. While this Communiqué will reach you close to **Remembrance Day**, I encourage all of you to consider this throughout the year, and not only on November 11th.

November also marks our last **ASRHAE** evening meeting before we take our Christmas break. The year is off to a fine start, and we hope you will join us again at **Restaurant International** for our third meeting. It is certainly far too early, but given this is my last opportunity, let me be the first to wish all of you a Merry Christmas, and to have a safe and happy holiday.

After the success of last year's panel discussion on construction methods, we are going to have another panel discussion, this time on seismic design and concerns in our local market. Seismic design and construction continues to be something that is of prime importance in the construction industry, and we feel that this panel discussion is an excellent opportunity to get to hear from many voices that are impacted by this. We're fortunate to have two **ASHRAE** past president's as part of the panel, and greatly appreciate the time and energy donated by all four of the panel members.

This month is also our first seminar of the year. A very large part of what we try to do each year is to offer evening meetings and seminars that are of interest to our membership. I believe we've succeeded with our first seminar. I expect a strong turnout, and the event will be accepting participants until a few days before the Nov. 12th event.

We are also continuing with our technical sessions this month. We had been approached by the membership to offer sessions on the current status of equipment and equipment components. Our first session of this type last month covered a variety of compressor technologies. This session will center on gas burner technology in air handling equipment, including direct and indirect fired burners, as well as high-efficiency condensing type burners. We're fortunate to have **Glenn MacLean**, an **ASHRAE** past president to offer this technical session. I encourage all of you to attend, as it is in all of our best interests to be up to date on the most current technology available. I look forward to seeing all of you at our next meeting.

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# What You Missed

The second meeting of the program year took place at the **Restaurant International** at **Algonquin College**. The meeting was called to order by President **Steve Moons** at 6:15pm and attendees were seated.

The business session commenced with President **Steve Moons** introducing the Board of Governors and Executive, followed by **Adam Graham** introducing the guests for the evening. **Adam Moons** welcomed new members and **Adrienne Mitani** discussed the night's theme of students.

**Steve Moons** gave a quick recap of the **ASHRAE** stroke play golf tournament. **Peter Nabi** won with a score of 76. Steve then reviewed today's tech session topic of refrigeration and compressor technologies.

The **Hydro Ottawa** table top display was introduced by **Kevin Quinlan**. $710M in incentives were issued in Ottawa area in the past 4 years. It was announced that the incentive program has just been extended for next 6 years. This is great news for current and future retrofit projects.

The **Master** table top display of **Data Aire** was then introduced by **Chris Fudge** followed by **Andrew Douma** introducing the **Total HVAC** table top display of **PoolPak**.

During the social hour, the research promotion committee raffled off tickets to an **Ottawa Senators** game. The tickets were graciously donated by **Engineered Air**, raising $410 for **ASHRAE** Research.

Following the business session, attendees enjoyed an excellent seated dinner.

Next the evening program presentation commenced with **Mark Palitza** of **Seresco** introducing himself and his presentation on Natatorium Design. The presentation was started by showing several photos of natatorium design gone wrong and introducing and explaining some potential issues. A few key items are as follows:

- Missing vapour barrier
- Suspended ceiling in pools
- Stainless steel materials in pools (don't use in load bearing applications)
- Efflorescence (moisture forced through structure and evaporates, leaving minerals behind)

The presenter then introduced **Sterling chart** showing how relative humidity can impact occupant health. The optimal RH was shown to be between 40% and 60%. This was then followed by a methodical discussion of design criteria, considerations and potential areas of concern in pool design. A brief overview is listed in point form below for reference:

**Design issues and considerations**

- Discussed dew point concept
  - Dew point is the temperature at which moisture will condense out of the air
  - Any surface with a temperature below the dp will allow condensation
  - 82F/50%RH, 62F dew point
- Evaporation occurs from a differential in vapour pressure at the water surface to the the vapour pressure of the air at its dew point.
- Evaporation rate calculation:
  ER = 0.1 x A x AF (Pw – Pdp)
  - ER=evaporation Rate of water, lb/h
  - A=area of pool water surface, ft2
  - AF=Activity Factor
  - Pw=saturation vapor pressure at water surface, in. Hg
  - Pdp=partial vapor pressure at room dew point, in. Hg
  - 2 scenarios must be checked for greatest load
    - Occupied, AF=1 and RH of 60%
    - Unnocupied, AF=0.5 and RH of 50%
  - Allowing reasonable RH increase under high activity allows for reduction in equipment size and energy savings
- Introduced typical design conditions and activity factors for various applications
  - Emphasized the importance of proper owner expectations of pool use in sizing dehumidification equipment and air distribution
- Olympic pool example given
  - Emphasized that an increase in air temperature will reduce heat loss due to evaporation.


**Secretary**
***Adam Graham***
2014-2015
OVC Secretary
***HTS Ottawa***
**E-mail:** *adam.graham@hts.com*


**Energy consideration**

- Rule of thumb for air temperature is 2F warmer than pool water temperature

**Condensation control**

- Dew-point is critical
- 3-5cfm/ft2 glass, 5cfm/ft2 skylights
- Diffuser type and locations are critical

**Moisture migration control**

- Maintain negative pressure inside pool relative to outdoors and adjacent spaces.
- Vapour barrier is essential and location should be on high moisture side.

**Pool water quality**

- Largest IAQ concern (due to chloramines)
- Improved with proper water chemistry, UV, increased OA and EA rates

**Addressing the IAQ concern**

- OA=0.48cfm/ft2 + 7.5 cfm/spectator (approx. double OA for water parks)
- EA ~ 1.1 x OA (approx., to maintain 0.05-0.15" wg negative as per ASHRAE Applications Chapter 4)
- Trichloramines are 4x heavier than air -> consider source capture?

**Art of air distribution**

- **ASHRAE** dictates recommended air changes per hour (ACH)
  - 4-6 ACH for natatorium
  - 6-8 ACH for spectator area
  - 8 ACH for water parks
- Specify cfm needed to satisfy ACH required and to get OA required into breathing zone
- Supply air to where condensation is predictable such as exterior windows, doors, etc.
- Return air to compliment and avoid short circuiting (can cut off as much as 50-75% of effective supply air)
- Perimeter air supply can cause a

desireable secondary airflow at 10-30fpm over the water surface

**Art of duct design**

- Duct materials are critical
  - Galvanized grade G90 or higher is ok
  - Aluminum is good but expensive (anodized prefered)
  - Fabric is great but proper air distribution is critical
  - Avoid stainless steel due to high corrosion concerns and high cost
    - Photo shown of corrosion of high grade 316L SS after only 8 months

**Heating and cooling**

- Space temperature is 10-15F higher than typical applications (more heating, less sensible cooling)
- Including OA is critical as this will acount for approx. 50% of heating load

**Energy/heat recovery**

- Approx. 100F ΔT between OA and EA in winter (high energy savings potential)
- Recommended for units 2000-5000cfm or higher
- Pool water heating is a no brainer (free pool heat at the cost of proper dehumidification)

Following the presentation, **Mr. Palitza** opened the floor up to some questions. After several minutes of Q&A, President **Steve Moons** thanked the speaker and presented him with a gift. The meeting was adjourned at approximitely 8:50pm.

# ASHRAE OVC Seminar

**DATE:** **Wednesday, November 12, 2014**
Full Day Seminar (8am - 4pm)

**LOCATION:** Master Group Ottawa Training Room
25H, North Side Road, Nepean, ON, K2H 8S1

**TOPIC:** **Hydronic/Pumping System Design (Part 1 of 2)**

**PRESENTER:** **Phil Searle, C.E.T.**
*Manager, Consultant Services, Xylem*

**OVERVIEW:** This full day seminar will be geared mainly towards consultants with little or some water systems and pumping system design experience and an interest in understanding the components and design fundamentals of these systems. This is the first of a two part presentation series. A full presentation outline for Part 1 is given below.

| # | TOPIC | BRIEF DESCRIPTION |
|---|---|---|
| 1 | Hydronics Overview | Definition of Hydronic & review of basic system types. |
| 2 | Pump Construction | Review of range of B&G pumps comparing Basemount & Vertical In Line construction. Hi review of vibration. |
| 3 | Mechanical Shaft Seal | A susceptible component in a pump. Construction & selection is addressed as well as identifying common failures. |
| 4 | Pump Accessories | Suction and discharge fittings addressing the requirements of HI and ASHRAE 90.1. |
| 5 | Pump & System Basics | Details of pump construction, how pump curves are generated & a review of the system resistance curve. How to analyze shortfall in system capacity & meet the requirements of ASHRAE 90.1. |
| 6 | Parallel Pumping | Construction of parallel pump curves. End of curve operation caution and system operating cost benefits. |
| 7 | NPSHA&R | Pump suction conditions determine Net Positive Suction Head Available. Available must exceed required. How to evaluate the condition and negative consequences. |
| 8 | Air Management | The role of the Compression/Expansion tank & point of no pressure change. When to contain air & when to vent. Sizing tanks and getting the location right. |

***Space is limited to 30 people so please register online ASAP***
https://ashraeottawa.simplesignup.ca/en/643/index.php?m=eventSummary

Registration has been extended and will close November 7, 2014

Continental breakfast and lunch will be provided.
Please contact **Sandy Taylor** with any special dietary concerns.
sandy@ashrae.ottawa.on.ca

# News Update

**Governor**
***Daniel Redmond***
2014-2015
Chapter Technology
Transfer Chair
***MMM Group***
**E-mail:** *RedmondDan@mmm.ca*

### ASHRAE, AHR EXPO RETURN TO CHICAGO FOR 2015 WINTER CONFERENCE, EXPO

**ATLANTA** – Registration is open for **ASHRAE's 2015 Winter Conference** in **Chicago** where attendees have the chance to discuss and examine the latest topics in the building industry, network; participate in technical tours; attend **ASHRAE Learning Institute** courses; earn professional credits; and obtain **ASHRAE** certifications.

The **ASHRAE Conference** takes place Jan. 24-28, P**almer House Hilton**, while the **ASHRAE** co-sponsored **AHR Expo** is held Jan. 26-28, **McCormick Place**. Complete Conference information and registration can be found at www.ashrae.org/chicago and Expo information at www.ahrexpo.com

In keeping with **ASHRAE**'s goal of continuing education, the Conference offers over 200 **Professional Development Hours**, as well as **Continuing Education Units**, which can be applied toward a **Professional Engineering** license.

The Technical Program features more than 100 sessions and 300 speakers over eight tracks: Systems and Equipment; Fundamentals and Applications; Industrial Facilities (new); Large Buildings: Mission Critical Facilities and Applications (new); Energy Efficiency; Life Safety (new); Design of Energy and Water Efficient Systems (new); Hospital Design and Codes (new). Specifically, the program features sessions on cold climate design, tall buildings, hospital and clean room design and data centers.

The **ASHRAE Learning Institute** (**ALI**) offers 20 professional development seminars and short courses to stay current on **HVAC&R** trends. Among them is a new course on **Standard 202**, Commissioning Process for Buildings and Systems, in addition to updates to **Standard 90.1**, Energy Standard for Buildings Except Low-Rise Residential Buildings, and **62.1**, Ventilation for Acceptable Indoor Air Quality. Training topics include commissioning, energy management, **Standard 55**, Thermal Environmental Conditions for Human Occupancy, energy efficient data centers, healthcare facilities, building energy audits, the coming smart grid and ground source heat pumps. Register at www.ashrae.org/chicagocourses

Additionally, **ASHRAE** offers a special administration of all six certifications on Jan. 28: Building Energy Assessment Professional (BEAP); Building Energy Modeling Professional (BEMP); Commissioning Process Management Professional (CPMP); High-Performance Building Design Professional (HBDP); Healthcare Facility Design Professional (HFDP); and Operations & Performance Management Professional (OPMP). Register at www.ashrae.org/certification

The keynote speaker at the opening **Plenary Session** is **Aron Ralston**, adventurer and subject of the film **127 Hours**. In April 2003, during a hike into a remote area of Utah's canyon country, Ralston accidentally dislodged a boulder that crushed and pinned his right hand. After six days of entrapment alone, he freed himself with a cheap multi-tool knife and hiked to a miraculous rescue. Since his amputation, Ralston has written an internationally bestselling book, Between a Rock and a Hard Place, later turned into a movie nominated for six Oscars.

Also offered are technical tours, which include **Walgreens** net zero store, a brewery and McCormick Place.

**ASHRAE**, founded in 1894, is a global society advancing human well-being through sustainable technology for the built environment. The Society and its more than 50,000 members worldwide focus on building systems, energy efficiency, indoor air quality, refrigeration and sustainability. Through research, standards writing, publishing, certification and continuing education, **ASHRAE** shapes tomorrow's built environment today. More information can be found at www.ashrae.org/news

### DOE UPDATES NATIONAL REFERENCE STANDARD FOR COMMERCIAL BUILDINGS TO 90.1-2013

**ATLANTA** - Following preliminary analysis that **ASHRAE/IES**'s 2013 energy efficiency standard contains energy savings over the 2010 standard - 8.5 percent source energy savings and 7.6 site energy savings - the **U.S. Department of Energy** (**DOE**) has issued a ruling that establishes the 2013 standard as the commercial building reference standard for state building energy codes.
In an announcement in the Sept. 26, 2014 edition of "*The Federal Register*," **DOE** attributes the greater en-

ergy savings to improvements in **ANSI/ASHRAE/IES Standard 90.1-2013**, Energy Standard for Buildings Except Low-Rise Residential Buildings,related to several areas, including better lighting, fans, commercial refrigeration, boilers and controls.

The determination means that states are required to update their codes to meet or exceed the 2013 standard within two years. Currently, states must meet or exceed the 2010 standard, which serves as the commercial building reference standard for state building energy codes under the federal **Energy Conservation and Production Act**.

"*ASHRAE is pleased with this ruling from the DOE, recognizing the energy savings measures in the standard,*" **ASHRAE President Tom Phoenix** said. "*Standard 90.1 was an original cornerstone in our efforts to improve building performance, and we continue to strive to increase its efficiency in the future.*"

Among the eight addenda that are identified as having a major positive impact on energy efficiency, **IES** notes that three are attributed to lighting changes according to **Rita Harrold**, **IES** director of technology. These address control requirements for lighting alterations, additional controls for more spaces with a shortened time to lighting reduction or shutoff, and a decrease in lighting power density in most building types to reflect changes in revisions to illuminance recommendations in the **IES Lighting Handbook**, 10th edition.

The **DOE** noted that the 2013 standard contains 52 positive impacts on energy efficiency that were incorporated into the analysis. These impacts included changes made through the public review process in which users of the standard comment and offer guidance on proposed requirements. Specifically the major positive impacts include:

- Control requirements for lighting alternations
- New requirements for individual fans
- Reduction of energy usage for large boilers
- Reduction of fan energy usage
- New efficiency requirements for commercial refrigeration
- More controls in more spaces and reduction of time to reduction or shut off of those controls
- Reduction of lighting power density in most building types

## ASHRAE ANNOUNCES RECIPIENTS OF STUDENT DESIGN COMPETITION; APPLIED ENGINEERING CHALLENGE

**ATLANTA** - Students who took part in **ASHRAE's 2014 Student Design Competition** were challenged to do research and design for a research and design development facility.

The 2014 student competition focuses on a two story office building in **New York City** with a research and development facility. **ASHRAE** student teams outside the United States were allowed to locate the building in the capital of their state, province or country.

**ASHRAE** also announces the recipients of the A**pplied Engineering Challenge**, which focused on the need to improve indoor air quality (**IAQ**), particularly in residential applications in developing countries.

Among the 39 entries from 13 countries, four were awarded first place in the categories that the competition and challenge offer.

First place in **HVAC Design Calculations** is awarded to a team from the University of Central Florida, Orlando: **Christopher Erickson**, associate engineer, Universal Creative, Orlando; **Ian Faulkner**, mechanical designer, exp U.S. Services, Orlando, Fla.; **DJ Marshall**, mechanical engineer, TLC Engineering for Architecture, Orlando, Fla.; **Richard Suarez**, quality engineer, **Rockwell Collins**, San Diego. Calif.; **Kristian Jack Szymanski**, Coral Springs, Fla.; and **Ju Young Yu**, Winter Park, Fla. Their faculty advisor is **Gabriel Vazquez**, Ph.D.

The team's objective was to design a high efficiency HVAC system with long life cycle, and excellent indoor air quality while maintaining cost effectiveness. They selected variable refrigerant flow (VRF) systems with simultaneous heating and cooling and dedicated outdoor air systems (DOAS) with energy recovery. Other equipment included air valves for lab areas and high efficiency particulate absorption (HEPA) filters and exhaust fans to eliminate contamination.

A 20 ton DOAS unit, three condensing units and several heat recovery units were used to supply required air to all types of VRF units contained within the building. A separate 50 ton DOAS unit was used for lab areas due to the high air change requirement of the clean room and high exhaust rate in the four research and development areas. For each DOAS unit, an exhaust fan was used, and one additional exhaust fan was selected for emergencies only, such as in the case of a refrigeration leak.

The total cost associated with the selected systems was $570,203. The design encompasses efficiency, health and safety, comfort, functionality, longevity, flexibility and maintainability with a low life cycle cost.

First place in **HVAC System Selection** is awarded to a team from Kansas State University, Manhattan, Kans.: **John Gaito, Kathryn Helmer, Lexie Oliver, Alex Pint, Megan C. Walkowiak** and **Gordon Zimmerman**, all of whom are senior level students in architectural engineering. Faculty advisors are **Julia Keen**, Ph.D., P.E., HPBD, and **Fred Hasler**, P.E.

The students selected a ground source heat pump (GSHP) system where water is pumped through vertical piping in the ground, providing a heat source and heat sink for the heat pumps. The main water loop serves the heat pumps and DOAS allowing heat transfer between spaces to maximize energy efficiency.

The GSHP system met all the owner's requirements in using the ground as a heat sink and heat source to serve the building. As a result, the energy savings are immense. This creates a low-cost, reliable, flexible, maintainable, sustainable system.

An unusual addition to the system was incorporation of a wall of vegetation created by attaching plants that do not require soil to a mesh grid. Given that the building is used for research and design, the exhaust and ventilation rates are significant and consume large amounts of energy. Ten small bio-walls are used to

decrease energy consumption for the entire building by decreasing the required ventilation in the office spaces.

First place in Integrated Sustainable Building Design is awarded to a team from Montana State University, Bozeman: **Elyse Casper**; **Theresa R. Lindenau**, Bozeman, Mont.; **Terra Moran**, materials engineer, Imperial Oil, Calgary, Alberta; **Mary Peterson**, project engineer in the commercial solutions division, 3M, Saint Paul, Minn.; and **Martin Reaves**, founder, Monolithic, Bozeman, Mont. Their faculty advisor is **Kevin Amende**, P.E.

For the HVAC systems, students implemented multiple systems with high efficiencies, using the nearby river as a heat exchanger. The main system -- a VRF system -- is more expensive upfront, but more cost-effective and energy saving throughout the life of the building. It was implemented to condition the open office, library, meeting rooms, mailroom and HR office spaces. It has the additional benefit of requiring no duct work; only the routing of small refrigerant lines.

Fresh air is pre-conditioned by a heat recovery ventilation unit that exchanges energy with exhaust air leaving the building. This recovers energy while improving air quality. Fresh air is vented directly into the fan coil units in the VRF spaces, first mixing and then distributing throughout the rooms. Fresh air for the computer server and research and design spaces is ducted into the heat pumps and blown into the rooms directly. Acoustic and filtration specifications were addressed through appropriate noise dampening and filtration products.

Review of data showed energy consumption was reduced by almost 70 percent; cooling load was reduced by over 60 tons; and carbon and greenhouse gas emissions were more than halved. The new design pays back after year twelve, and saves the owner almost $1 million by the end of 40 years. Although the design did not reach net-zero, the improvements were exponential. With a larger budget or new construction, the net zero goal could be realized.

**ASHRAE** also announces the recipients of the **2014 Applied Engineering Challenge**, in which students were required to design and specify a small, portable air conditioner that must be affordable, maintainable and effective in the local cultural environment.

The first place **Applied Engineering Challenge** recipients are a team from California Polytechnic State University, San Luis Obispo: **Juan Silva**, sales operation, SYSERCO, Fremont, Calif.; and **Nelson E. Echeverry**, design engineer, Donald F. Dickerson Associates, Tarzana, Calif. Their faculty advisors are **Steffen Peuker**, Ph.D., and **Jesse Maddren**, Ph.D., P.E.

The system involves a series of measures that a family living in Mexico City can take to improve the IAQ in their house. Starting in the kitchen, a wood stove with a chimney attached was used to vent out the smoke caused from burning biomass. The stove provides heating during cold days, reduces pollution caused by inefficient cooking stoves and provides reliable operation.

Next, in the living room, a window fan was modified with an external air filter at the inlet of the fan, capturing most of the harmful contaminants and allowing fresh air to enter the house. With forced airflow, pollutants are dispersed, thus avoiding high concentrations. A window fan providing a capacity of 1400 CFM is sufficient to supply the entire house. For cooling, students chose a window unit, which helps in reducing humidity.

One major benefit is that units are portable and can easily be installed in a new or different home. Two financial tiers were created: one targets low to middle class families, providing equipment and devices to satisfy comfort needs and to improve healthy living, but with less expensive materials. The second tier for high to mid class families contains a power generator and window unit.

The projects will be shared at the **2015 ASHRAE Winter Conference**, Jan. 24-28, Palmer House Hilton, Chicago, Ill. Also taking place at that time is the **ASHRAE** co-sponsored AHR Expo, Jan. 26-28, McCormick Place, Chicago.


# 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 50+ people.

We currently have table-top openings for our February 2015 and May 2015 **OVC ASHRAE** meeting schedule. Please contact **Andrew Klassen** at the email below to secure yours today! Cost for table-tops is $225 and spaces are filling up quickly, so book your table-top today!

The featured table-tops for the November **OVC** meeting are **Vibro-Acoustics** presented by **Walmar** and **Kinetics Noise Control** presented by **HTS.**

Remember to drop by and check out the displays, and thank you for your continued support of our **ASHRAE** Ottawa Valley Chapter.

**Committee Chair**

***Andrew Klassen***

2014-2015

Table Top Committee Chair

***Trane Canada ULC***

**E-mail:** andrew.klassen@trane.com

VIBRO-ACOUSTICS®
A Swegon Group company

***Vibro-Acoustics™****, with over 50 years of experience, is a North American leader in noise control, vibration isolation, and restraint system solutions. We focus on providing engineered solutions for vibration isolation and restraint systems while reducing installation labour. With this focus,* ***Vibro-Acoustics™*** *has introduced new labour saving products to the restraint market such as our* ***SIPS™*** *seismic inline pump stands and our* ***BulletBrace™*** *cable restraint system.*

***Vibro-Acoustics™*** *is proudly represented in Eastern Ontario by* ***Walmar Ventilation Products****.*

KINETICS Noise Control

HTS

***Kinetics Noise Control*** *is an industry leading designer and manufacturer of noise and vibration control solutions and equipment. Areas of expertise include: HVAC, industrial and precision equipment isolation, acoustic duct silencers, plenums and louvers, floating floor systems and a vast array of seismic restraint products.*

***HTS*** *is your local* ***Kinetics Noise Control*** *representative as well as one of the most proficient seismic consulting firms in the Ottawa region.* ***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.*

# 2014 Bowling Social

**Ladies and Gentlemen**,

Time is running out to get your team in for the 2014 ASHRAE Bowling Social held on Wednesday November 19th, 2014 at the **Merivale Bowling Center**.

1916 Merivale Rd., Ottawa,
www.merivalebowlingcentre.com

The format will be three games with 4 people per lane. 7:00 pm start. Please show up at 6:30 to register. The entry fee is $200 per foursome, or $60 per individual. The entry fee includes warm-up, 3 games, shoe rental and plenty of nachos/wings/pizza. Individual participants will be assigned into groups of four.

This is intended to be a social event to promote the camaraderie and fellowship of **ASHRAE**, please consider attending. Numbers need to be finalized by the first week of November, so please register early. Registration can be done on-line via the link below. Registrations will be confirmed via email receipt. If you have any questions, or need more information, please don't hesitate to contact me.

Payment can be made during the on-line registration. Be sure to sign up today, as the deadline will be next Wednesday, November 12th, 2014.

**Committee Chair**

***Adam Moons***

2014-2015

Membership Committee Chair

***Walmar Ventilation Products***

**E-mail:** *adam@walmar.net*

https://ashraeottawa.simplesignup.ca/en/567/index.php?m=eventSummary

# 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:

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

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.


**Governor**

***Daniel Redmond***

2014-2015

Chapter Technology Transfer Chair

***MMM Group***

**E-mail:** *RedmondDan@mmm.ca*


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 Link 1 below.

Submission at the chapter level is not very complicated or time consuming. All that is required is submission of the the short form application form (please see link below) and a brief description of the project. See Link 2 below.

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**.

Link 1: http://www.ashrae.org/membership--conferences/honors--awards/technology-awards-program

Link 2:
https://www.ashrae.org/File%20Library/docLib/Committees/CTTC/Chapter-Regional-Application-Short-Form.pdf

# Student Activities

The school year is into full swing, and our student chapters are off to a great start with the Algonquin chapter getting off the ground, and the Carlton chapter has set up their events with a talk about industry scheduled this month, with a follow up Career Panel next month. The career panel will have representatives from the range of different opportunities in industry including sales, consulting, and contracting to give students ideas of what the industry has to offer.

The YEA event on October 30th went really well and we had a great turn out from Carleton that came out and played some pool with us!

**Other information for Students:** Check out the **Carleton ASHRAE Student Chapter** website, http://carletonashrae.blogspot.ca/

The **ASHRAE Scholarship** program is now excepting applications for undergraduate engineering scholarships at $3,000 to $10,000 each, deadlines December 10th, 2014. **Engineering Technology Scholarships** deadlines are May 1st 2015. Please visit the link below for more information: http://www.ashrae.org/scholarships

If you are a student member who just graduated this summer, you can save lots of money by transferring your student membership with the **Smart Start Program** save $410 (US) over three years!

Universities can also apply for the **Undergraduate Student Grant** and


**Committee Chair**

***Adrianne Mitani***

2014-2015

Student Activity Chair

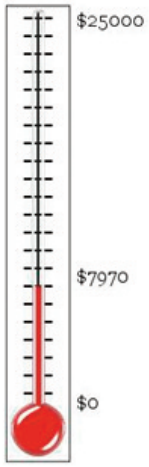
***Smith and Andersen***

**E-mail:**
*Adrianne.Mitani@smithandandersen.com*


receive funding for new projects involving an **ASHRAE** topic. Applies to engineering, architecture, or engineering technology department!
http://www.ashrae.org/grants

**Smart Start Program:**
https://www.ashrae.org/membership--conferences/student-zone/membership-and-meetings/ashraes-smartstart-program

# 2014-2015 Research Promotion Campaign

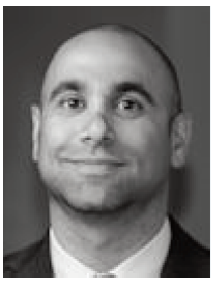



Whether it's improving the work setting in an office building to increase productivity or providing guidelines for emerging technologies, **ASHRAE Research** helps engineer the world we live, creating better indoor and outdoor environments around the globe. This would not be possible without the individuals and organizations that have chosen to support **ASHRAE**'s vision with their financial contributions. To continue our progress, we need your support as well.

At the upcoming November 18th meeting, we will be handing out the donor recognition items from our **2013-2014 RP Campaign**. This is a great event to thanks the individuals and organisation that continue to support **ASHRAE Research**. We hope to see all last year's donors at the meeting!

At the October meeting, we raffled off 4 tickets to the **Ottawa vs New Jersey** game that were generously donated by **Engineered Air**. These tickets helped raise $410 towards **ASHRAE Research**. The hockey raffle will continue at the November meeting.

As of November 1st, we have raised $7,970 towards our campaign goal, which is close to 32% of our goal. I would like to thank our current donors to date for the **2014-2015 RP Campaign**. This list will be updated for each monthly newsletter, so hurry up and donate to have your name appear.



**President-Elect**
***Georges Maamari***
2014-2015
Research Promotion
***BPA***

**E-mail:** *gmaamari@bpa.ca*

Thank you for your continued support of **ASHRAE Research Canada**!

**Georges Maamari**, P.Eng
President-Elect and RP Chair
613-596-6454
1960 Robertson Rd. Suite 100
Ottawa, Ontario, K2H 5B9

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# Membership Update

**Committee Chair**

***Adam Moons***

2014-2015 Membership Committee Chair

***Walmar Ventilation Products***

**E-mail:** *adam@walmar.net*

**Greetings Everyone!**

Becoming a member of a professional organization has many advantages. These groups are found in almost all fields and industries. One question often asked is, "*Is it worth the yearly fees to join such assemblies?*" The short answer to that question is a resounding "yes". The advantages of joining a professional group are many and that helps build member value for individual members.

People join professional organizations for a variety of reasons. Generally there are two major justifications for enrolling in a group. A person either wants to give back to their industry or they want to derive some sort of value from the assembly.

Fortunately, for most people their desire to become a group member lies somewhere in between and they both want to give and receive from the organization. Most groups give members the opportunity to do both within their operations.

**Member Value** - Benefits of being an organization member

**Giving back** - Many members see giving back to their industry as excellent value. Many groups work on behalf of their members to affect change at the government or social levels. While giving in this instance helps the entire industry it will also give the member valuable exposure to other key players in their field. By giving you may also receive in this case.

**Mentoring** - Mentoring is another avenue where value can be both given and received in an organizational setting. Members with experience may see value in helping younger members gain experience and knowledge in the industry. Younger affiliates may profit from the wisdom older constituents can provide. This situation provides a winning combination for all involved and may afford value both ways.

**Professional development** - One of the biggest givers of value in any organization is for its members to have the chance for further development in the industry. Through courses, seminars, workshops, publications and many other avenues, individual members can take advantage of the collective knowledge of their entire organization. This can prove invaluable for members.

**Industry advancement** - It is important for every member of any organization to have a goal of advancing that industry in some way. This provides value for the entire group by raising awareness of industry standards and practices. Your organization can be shown in a positive light if its members showcase what the group has to offer society. Every industry, or field of endeavor, generally benefits mankind in some way. If members take the time to showcase their area of concern great value can be provided to the organization, and by extension, its members.

**Networking** - The ability to stay in contact with association members may be the biggest value of all concerning professional organizations. There is really no substitute for member contact. You can forge valuable relationships with other group members that can pay off when looking for a new job or when needing referrals or recommendations for many things. Professional meetings and leisure gatherings give you the opportunity to meet and mingle with your peers. These contacts can pay off with big dividends. Organization members are generally willing to help other members. Networking is a wonderful to get to know organization members and interact with these people in any number of ways.

**Membership access** - As a member of a professional organization you will have access to all members within the group. This access can pay off in a number of ways. You can call on members to help out if you serve on committees or boards. Other members are often experts in certain fields that you may need assistance in. Member access allows to you to engage people for experience, expertise and knowledge.

**Discounted rates** - Organizations generally provide discounted rates for members at events such as luncheons and meetings. This is a big source of value if you are active in the group. If you offer to help out at events by giving a talk or some kind of presentation you may get free access to these events.

It is often hard to justify spending your hard-earned money on dues and fees for professional organizations. Yet, that money can provide great value to you, and the organization.

Member value can be viewed as working both ways, getting and giving, but in the end it's the member who generally enjoys the greatest value. Get involved in your professional organization and enjoy the benefits of being a member.

I would also like to introduce and welcome the following new member:

**Mr. Hatem Khalfallah**
**Mr. Matthew I Laframboise**
**Mr. Matthew David Desjardins**
**Mr. Jeremy Strong**

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

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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.

**President & CRC Delegate**
***Steve Moons***
2014-2015
OVC President
***Total HVAC***
**E-mail:** *stevem@totalhvac.com*

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 **Abbey Saunders** at *abbey.saunders@nrc-cnrc.gc.ca*.

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.

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