Capital Communiqué
2015 October Edition

ASHRAE Ottawa Valley Chapter

DATE: **Tuesday October 20, 2015**
(Social: 17:30, Dinner: 18:30, Program: 19:30)

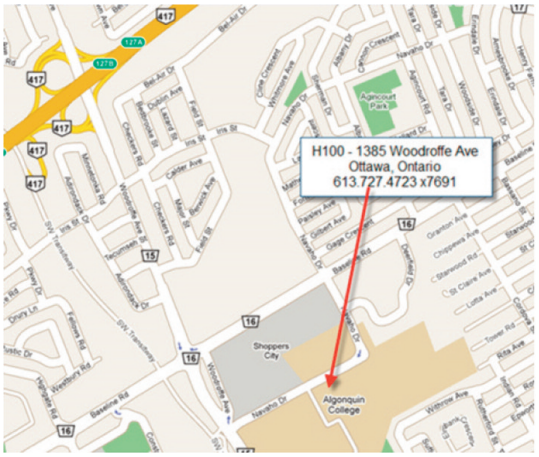
LOCATION: **Algonquin College Restaurant International**
1385 Woodroffe Ave, Building H, Room H100

PROGRAM: **High Induction Diffusers**

SPEAKER: **Andrew Nader**

SPEAKER BIO:

Andrew Nader graduated in 2012 from Ecole Polytechnique de Montreal in mechanical engineering with a specialisation in HVAC. He began his career the same year for The Master Group as an intern and quickly climbed through the ranks to become 3 years later the ventilation products manager. During these years, he assisted consulting engineering firms with equipment selection and designs in the commercial and institutional field. In addition, he managed several field problems and received training on commissioning and adjustment of mechanical ventilation systems. He recently became the ventilation products manager where he is responsible for the addition of various product lines and has the mandate to present, demonstrate and promote all new and existing ventilation products to Master representatives, contractors and engineering firms. Moreover, he trains the internal and external personnel in regards to ventilation system effects, acoustic issues, flow control and many other technical topics.



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/1150/index.php?m=eventSummary

President's Message

President
Georges Maamari
2015-2016
OVC President
BPA

E-mail: *gmaamari@bpa.ca*

Dear members,

Last month's meeting produced a large turnout, was a huge success and our chapter is off to a very good start for the year. Finding interesting topics in the HVAC field is not always the easiest task. Our goal is to interest a cross section of our membership, and somehow, through our resources and scratching our heads, we manage to find current and informative topics to attract a good crowd to our meetings. People attend these monthly meetings not only for the interesting topics but also to engage in some networking during the social hour by meeting others in the industry. This is rewarding not only for the individual, but for the industry's future as well.

I have noticed that the **Ottawa Valley Chapter** is a breeding ground for talented HVAC people who yearn to learn more as well as share their knowledge with their peers. So the bottom line of my message is to come to our meetings, get involved with chapter operations and volunteer your time on a chosen committee. We have several committees to choose from that could use your help so please don't be shy!

Our theme for the October meeting is **student activities**. Students are the future of our industry and our committee is continuously working to facilitate the integration of students to our industry, even before they complete their studies. By attending meetings, students have the chance to possibly meet their future employer, socialize with future peers, and learn about HVAC related topics. We hope that our members will continue to encourage students to attend meetings by sponsoring a meal.

Our next program meeting will be held on October 20th at the **Restaurant International** at **Algonquin College**. Our speaker will be **Mr. Andrew Nader**, from the **Master Group** who will be hosting a presentation on high induction diffusers. To register please go to our website at www.ashrae.ottawa.on.ca and click on the October meeting program link. If you haven't already done so, don't forget to purchase your meal plan for the year and we hope to see a large number of you at this meeting.

Best regards,

Georges Maamari, P.Eng
2015-2016 OVC President

ASHRAE OVC Seminar

DATE: **Wednesday, October 28, 2015**
Full Day Seminar (8am - 4pm)

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

TOPIC: **Part 1: Air-to-Air Energy Recovery Fundamentals**
Part 2: Air-to-Air Energy Recovery Applications: Best Practices

PRESENTER: **Paul Pieper, Eng.**
Product Line Manager, Venmar CES

Paul Pieper, Eng., is the Product Line General Manager for Venmar CES Unitary Products. He has spent the majority of his career working with manufacturers of HVAC products and has developed in-depth knowledge of Unitary and Applied (airside) systems and equipment with particular emphasis in high performance and specialty applications. Throughout, Mr. Pieper has always been involved with some form of air-to-air energy recovery technology in general and Dedicated Outdoor Air Solutions® in particular. He has held roles in Applications, Engineering, Marketing, Product Management and Development

Mr. Pieper is a member of the Quebec Order of Professional Engineers. He represents his company with AHRI on the AHRI ERV Product Section and Compliance committees and several Working Groups. In addition, he also worked with ISO TC86/SC6/WG10 to help develop the International Standard prescribing a method of test for the ventilation and energy related performance of Heat Recovery and Energy Recovery Ventilators.

Mr. Pieper has long been involved and very active with ASHRAE. He has contributed to the ASHRAE Handbooks, peer reviewed several articles, and is a past Chair of ASHRAE TC 8.12. He is currently the Vice Chair of ASHRAE TC 5.5 Air-to-Air Energy Recovery and on the Project Monitoring Sub-committee for 1712-RP for the upcoming Dedicated Outdoor Air Design Guide. He is active as an Instructor for the ASHRAE Learning Institutes (ALI) and has developed two short courses relating to air-to-air energy recovery: "Air-to-Air Energy Recovery Fundamentals" and "Air-to-Air Energy Recovery Applications – Best Practices", which are part of the Energy Savings Practices Career Enhancement Curriculum.

OVERVIEW:

Part 1: Air-to-Air Energy Recovery Fundamentals
Air-to-air energy recovery provides one of the most cost-effective and efficient ways to recycle waste energy and create superior indoor environments. This course introduces recommendations in the latest ASHRAE and AHRI standards, codes and guidelines with respect to air-to-air energy recovery technology to help determine where and when energy recovery is mandated and why. This course also provides a detailed overview of the most popular commercially available technologies on the market today and explores their construction, psychrometrics, thermodynamic theory of operation, and important operations and maintenance considerations for long life and consistent performance. Engineers, designers and other professionals who are interested in learning all about air-to-air energy recovery and receiving practical guidance on where and when to use different technologies for different applications should attend this course. By the end of the course, participants will be able to better evaluate the performance of these devices and will be able to identify the advantages of each technology to help solve practical problems in meeting ventilation requirements while delivering optimal performance.

Part 2: Air-to-Air Energy Recovery Applications: Best Practices
Air-to-air energy recovery is a very cost-effective and efficient way to recycle waste energy and create superior indoor environments. This course will review real-world examples of where and how air-to-air energy recovery technologies are integrated into some of the most commonly used commercially available systems. Particular configurations that are most commonly used in high-performance buildings and how they can best be used to meet stretch goals for IEQ and energy efficiency and thermal comfort will be examined with respect to established performance metrics, peak performance results and annual energy savings. A variety of different dedicated outdoor air systems, neutral air systems and enhanced dehumidification strategies (with single and multiple heat exchangers) will be examined in detail, along with the advantages and important considerations for using air-to-air energy recovery in many different applications. Best practices for mechanical design, exchanger selection and control strategies will be discussed throughout. Participants should attend this course who are interested in learning how to evaluate different DOAS systems incorporating air-to-air energy recovery and how to avoid common errors in equipment design while simultaneously being able to evaluate these systems beyond just peak performance.

Space is limited so please register online ASAP
$300 for ASHRAE OVC members, $360 for non-members
Registration will close **October 23, 2015**

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

ASHRAE Stroke Play Golf Tournament

Ladies and Gentlemen,

The **ASHRAE OVC** stroke play golf tournament was held this year at **Kanata Lakes Golf Club**. It was a perfect fall day and the course was in immaculate condition. A special thanks needs to go to **Doug Wellman** of **Modern Niagara Building Services** for his help in getting us on such a wonderful course. Congratulations go to **Peter Nabi** with **OCDSB**, who was crowned champion with a score of 80. This was the best attendance we've had in the four years of this tournament, and the continued success of the tournament means we will continue to hold it next year. You have 12 months to sharpen your game!

See you all next year.

Past President
Steve Moons
2015-2016
OVC Past-President
Total HVAC
E-mail: *stevem@totalhvac.com*

2015 Bowling Social

Ladies and Gentlemen,

You are cordially invited to participate in the 2015 **ASHRAE** Bowling Social, to be held on Wednesday November 18th, 2015 at the **Merivale Bowling Center** (1916 Merivale Rd., Ottawa, www.merivalebowlingcentre.com).

The format will be three games with 4 people per lane. 7:00pm start. Please show up at 6:30pm 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 online registration.

Govenor
Adam Moons
2015-2016 Membership Committee Co-chair
Walmar Ventilation Products
E-mail: *adam@walmar.net*

Adam Moons
Walmar Ventilation Products
24 Gurdwara Rd. Nepean, On.
Cell: 613-323-5341
adam@walmar.net

Link: https://ashraeottawa.simplesignup.ca/en/1138/index.php?m=eventSummary

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.

We are currently have some table top openings for the November and January meetings.

The featured table-tops for the October OVC meeting are **Rosemex** presented by **Walmar**, **VTS Group** presented by **Longhill** and **EH Price**.

Please contact **Shayan Mirza** to secure yours today! Cost for table tops is $225 and spaces are filling up quickly, so book your table-top today!

Committee Chair

Shayan Mirza

2015-2016

Table Top Committee Chair

Total HVAC

E-mail: shayanm@totalhvac.com

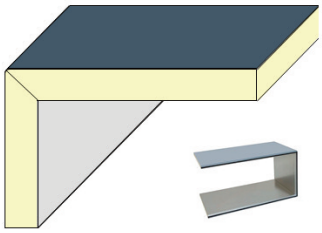
*The **VTS Group**, established in 1989, is global corporation with presences in over 40 countries across 5 continents. With over 630,000 units sold, they are the number 1 provider of Air Handling Units in Europe, and are increasing their sales worldwide and have recently expanded into Canada.*

The VTS Group is a market leader focused on dynamic long term growth and differentiates itself in the market with the following three key principles:

***1.** Innovative Technology: An innovative product featuring frameless casing and a concealed skeleton, completely eliminating thermal bridging, while increasing unit stiffness, and R-Value at significantly lower weight than the competition. This is available across their entire air handling unit product line which ranges from 800 to 38,000 cfm. All Units are built from standard components and sections, meaning you can achieve the flexibility and quality of a custom unit, with ease and relative cost of a modular unit.*

***2.** Advanced Supply Chain Management: Storage of components in 5 production plants located in Poland, India, UAE, China, and the USA, allows for ULTRA SHORT LEAD TIMES. 75% of all orders are shipped within 2 weeks.*

***3.** High Market Coverage and Distribution: High Market involvement in 40 countries, an extensive network of more than 350 technical sales consultants, and continuously expanding.*



***The Ventus Casing:** The innovative modular casing concealed skeleton C-Shaped cabinet of the Ventus line is like nothing on the market. The design is based on grooved panel, for infinite variability, and with the elimination of corner posts and a standard skeleton, the product has unmatched thermal performance and air leakage.*

*The VTS Group is a world leader in Air Handling. They have recently come to Canada, and are working with Longhill Energy to provide you with new and innovative solutions to your air handling needs. For more information on the many innovations from VTS, don't hesitate to contact the **Longhill Energy** sales group, "The Energy Conservation Innovators".*

WALMAR VENTILATION PRODUCTS

Walmar Ventilation Products *will be showcasing* ***Rosemex*** *heating products at this month's meeting. With 45 + years specializing in hydronic heating, Rosemex has a reputation for well-built and dependable terminal heating products.*

Rosemex has recently designed a stylish panel radiator which provides great heating performance at very low entering water temperatures.

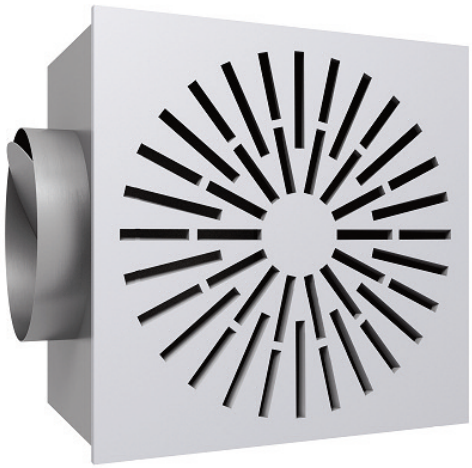
We will have a panel radiator on display along with a modular radiant panel and stainless finned-tube cabinet.

e.h.price

Price RSD - High Induction Radial Swirl Diffuser*:*

The ***PRICE RSD Series*** *of radial outlets, produces a high induction radial pattern generated by individually adjustable radial slots. The Price RSD provides optimal comfort through rapid temperature equalization and allows for lower supply air temperatures without the concern of drafts or dumping. The discharge pattern can be manually adjusted to produce 4 way, 3 way, 2 way or 1 way discharge, and from horizontal to vertical down by adjusting the pattern controller on each slot. The integral plenum box, available in side and top entry, ensures inlet effects are eliminated. RSD is available in various sizes, and two face styles; square and circular.*

Price Critical Controls *presents the* ***Touchscreen Room Pressure Monitor*** *(PMT) for intelligent room pressure monitoring of critical environments. The touchscreen interface of the PMT provides a sleek, modern design that allows for rapid set up and ease of use and features a maintenance free pressure sensor, BTL certified BACnet communication, visual and audible alarms, and illuminating side bars providing 180 degree visual status from anywhere in the corridor.*



Membership Update

Membership in **ASHRAE** is open to any person associated with building systems, particularly HVAC&R; energy efficiency; indoor air quality; and sustainability within the building industry.

There are many types of membership available. Here is a brief description of each of the membership types available:

Member Grade is open to anyone who has a combination of education, professional licensure and work experience equivalent to twelve years in the HVAC&R industry. You will be asked to provide information regarding your education, work, and professional licensure when applying for Member Grade.

Associate Grade membership is for those who have been in the industry for a few years and are focused on developing skills, and growing their network. Associate grade membership is open to anyone who has an interest in matters of design, operation, or maintenance in HVAC&R-related fields.

Affiliate grade is a low cost, introductory membership for those who are either: (1) under 30 years of age OR (2) who have been honorably discharged from the Military within the past 5 years.

Student membership is designed for engineering students who may be considering a career in HVAC&R. Student members are given the opportunity to transfer to Associate grade membership after graduation using the **SmartStart** program.

Committee Chair

Celine Baribeau
2015-2016
Membership
Committee Co-chair
BPA

E-mail: *cbaribeau@bpa.ca*

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

Mr Trevor Chaulk
Mr Joshua Lirette
Ms Heather Turcotte
Mr Steven Hamilton
Mr Stanley Tom
Ms Marlee Spiegelberg

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

News Update

DOE Releases Common Definition of Zero Energy Buildings, Campuses and Communities; ASHRAE Commends Efforts

WASHINGTON, DC – The **U.S. Department of Energy** (**DOE**) reached a significant milestone in bringing the building community together by releasing a common definition of a zero energy building, or what is also referred to as a "net zero energy" or "zero net energy" building.

After leading an extensive stakeholder engagement process over the past year and a half, the Energy Department released its findings in the recently published **A Common Definition of Zero Energy Buildings**, which states that a Zero Energy Building is "*an energy-efficient building where, on a source energy basis, the actual annual delivered energy is less than or equal to the on-site renewable exported energy.*" This definition also applies to campuses, portfolios, and communities. In addition to providing clarity across the industry, this new **DOE** publication provides important guidelines for measurement and implementation, specifically explaining how to utilize this definition for building projects. Please refer to the link below for more information.

Generally speaking, a zero energy building produces enough renewable energy to meet its own annual energy consumption requirements, thereby reducing the use of non-renewable energy in the building sector. There are a number of long-term advantages of buildings meeting this goal, including lower environmental impacts, lower operating and maintenance costs, better resilience to power outages and natural disasters, and improved energy security.

"*We applaud the Department of Energy's continuing work to promote buildings that use less energy. For more than 150 years, AIA-member architects have worked to advance our quality of life through design,*" said **Elizabeth Chu Richter**, FAIA, president of the **American Institute of Architects** (AIA). "*From designing the next generation of energy-saving buildings to making our communities healthier and more vibrant, the 86,000 members of the AIA shape our future through their work. The quality of this future is wholly dependent on sustainable, resilient buildings that reduce the nation's reliance on non-renewable energy sources. That is why the Department of Energy's work is vitally important to the industry and nation as a whole.*"

Lighting, Climate Zone Changes Proposed for ASHRAE/IES Energy Standard

ATLANTA – Changes regarding lighting and climate zones are being proposed to the energy standard published by ASHRAE and the Illuminating Engineering Society (IES).

Twenty-three addenda to **ANSI/ASHRAE/IES Standard 90.1-2013**, **Energy Standard for Buildings Except Low-Rise Residential Buildings**, are open for public comment starting Sept. 4, 2015. To comment or learn more, visit:
www.ashrae.org/publicreviews

Among the addenda open for public comment is addendum ch, which proposes a new set of interior lighting power densities (LPD) limits for both building area and space by space compliance paths. These new LPD limits stems from inclusion of light emitting diode (LED) technology into the space type models that are used to determine appropriate LPD limits for compliance with the standard, according to Eric Richman, chair of the standard's lighting subcommittee.

Committe Chair

Andrew Klassen

2015-2016

OVC CTTC Chair

Trane

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

These LPD limits (watts per square foot) are calculated using IES formulas that relate lighting energy use to lighting quantity based on the application of appropriate lighting technologies into individual space models. These models incorporate efficient cost-effective lighting technology, appropriate light loss factors, and current design practice that incorporate quality design elements.
The new LPD values are generally lower by sometimes small to often significant amounts. The magnitude of the change is based primarily on the amount of LED technology incorporated into the model.

"*These proposed changes have been under consideration within the 90.1 Lighting Subcommittee for several years,*" **Richman** said. "*Inclusion of LEDs were seriously considered for the 2013 version of the standard.*

However, at the time the changes needed to be processed (late 2012), the cost of LEDs was still relatively high and the variety and depth of available products was not deemed sufficient to incorporate into a mandatory code. We understand that LED technology continues to improve and become even more cost-effective such that by the time these new requirements are required for building projects, their effectiveness and viability on code compliance will be even easier."

Zero Energy Building: http://energy.gov/eere/buildings/downloads/common-definition-zero-energy-buildings

Also open for public comment is addendum *br*, which was developed in response to the publication of **ANSI/ASHRAE Standard 169-2013**, **Climatic Data for Building Design Standards**. Standard 169 includes more-recent weather data (resulting in changes in climate zone assignments for some locations, including approximately 10 percent of the 3,000 counties in the United States) and the creation of a new Climate Zone 0. The proposed addendum adds requirements for mechanical provisions.

Under addendum *w*, which is expected to be published in 90.1-2016, Standard 169 is referenced for climatic data (though a new Reference Standard Reproduction Annex in Standard 90.1 includes extracts from Standard 169). Addendum *w* proposed criteria for Climate Zone 0 in Standard 90.1 for envelope provisions. Addendum br covers criteria for Climate Zone 0 of Section 6 (HVAC), and for the mechanical systems portions Appendix C and G.

Generally, the new Climate Zone 0 is the hotter portion of the previous Climate Zone 1, which was the warmest climate zone. Cities in Climate Zone 0 include Mumbai (Bombay), Jakarta and Abu Dhabi. There are no cities in the United States in Climate Zone 0; Miami and the islands of Hawaii are in Climate Zone 1. The separation of Climate Zones 0 and 1 allows separate criteria for Standard 90.1 to be developed that are more specific to the hotter regions of Climate Zone 0.

Reports Estimate Over 100,000 New HVACR Mechanics and Installers Needed in Next Seven Years Due to Growth and Retirements

Arlington, VA – The HVACR Workforce Development Foundation released three new reports and accompanying executive summary today confirming that demand outstrips the supply of heating, ventilation, air conditioning and refrigeration employees. In particular, mechanics and installers are in critical shortage in most areas of the nation. **ASHRAE** is a member of the Foundation.

Due to the increased growth in the sector and the ongoing retirement of Baby Boomers, HVACR programs in technical and community colleges are not filling the seats available to meet the current and anticipated demand. HVACR employers are having a difficult time filling positions, especially for refrigeration and HVAC technicians, respectively 44 and 36 days longer than the national average of 29 days for similar positions.

"*HVACR programs in the U.S. and Canada are seeking new students, whether you are a recent high school graduate, veteran or second-career adult,*" said **Kari M. Arfstrom**, executive director of the HVACR Foundation. "*With HVACR certifications or an associate's degree, new employees can be assured of a solid middle class job that cannot be off shored, is high tech and offers better than average pay.*"

Almost half of all mechanics and installers will retire in the next decade according to the new research, but post-secondary HVACR programs are not filling the seats needed to support these jobs. The reports detail the opportunities available for HVACR workers and address the unique issues constraining the pipeline for these roles. Concluding the analysis of supply and demand is the introduction of a North American Plan to reduce the employment gap.

What is a Technical Committee?

The technical expertise of **ASHRAE** is concentrated in its **Technical Committees** (TCs), **Task Groups** (TGs), **Technical Resource Groups** (TRGs) and **Multidisciplinary Task Group** (MTGs) . These groups are responsible for:

- preparing the text of ASHRAE Handbook chapters
- originating, coordinating, and supervising Society-sponsored research projects
- presenting programs at ASHRAE meetings
- reviewing technical papers
- evaluating the need for standards
- and advising the Society on all aspects of the technology it embraces

ASHRAE TCs consist of people who have a recognized proficiency in a specific field of interest. TGs, similar to TCs, are formed when a subject of current interest is not covered in the scope of an existing TC or when the subject encompasses the scope of more than one TC. TRGs are similar to TCs except that their responsibilities are limited to preparing, reviewing, or revising technical material. They do not have responsibility for programs, research, or standards. MTGs are different from TCs, TGs, and TRGs. The objective of the MTG is to first try and better coordinate and focus the activities of the affiliated TC and non-TC groups (EHC, REF, SSPCs, outside groups, etc) that make-up the MTG on the task for which the MTG was created without duplicating the functions of a TC or TG so that the task can be completed as efficiently as possible.

Would you like to be part of a Technical Committee?

If you have further questions about TC Committee membership or TC Committee operations, and also to join a Technical Committee please see the link below.

TC: https://www.ashrae.org/standards-research--technology/technical-committees

2015-2016 Research Promotion Campaign

President-Elec
Abbey Saunders
2015-2016
Research Promotion
National Research Council Canada
E-mail: *abbey.saunders@nrc-cnrc.gc.ca*

ASHRAE Research plays a huge role in all aspects of our built environment. Our homes, offices, schools, hospitals, retail spaces and even the food we eat are all affected and hopefully protected by their **HVAC&R** system, or lack thereof. Although Georges and his committee have left me huge shoes to fill, I am pleased to be part of such an important part of society in serving as the **Research Promotion Chair** for our **Ottawa Valley Chapter**. The returning RP committee members of **Georges Maamari**, **Steve Moons**, **Bob Kilpatrick** and **Mike Swayne** share my enthusiasm regarding the importance of Research Promotion.

Our objective for the **2015-2016 RP Campaign** is $27,000. Although this seems like a lot, our chapter history, in particular last year's stellar fundraising efforts have shown us this objective is attainable. No donation is too small, and all money raised goes to **ASHRAE Research Canada**.

The raffle draws for **Senators tickets** will continue at each program meeting in support of our 2015-2016 RP Campaign. The October 17 Sens v. Nashville tickets complete with valet parking graciously donated by **SK Sheet Metal** raised a total of $700 (our highest ever – your support is incredible)! A special thanks to SK Sheet Metal for donating the tickets, and congratulations to **Adam Beales** of **Total HVAC** winner of the tickets.

As of September 23, we have raised $820 towards our campaign goal, approximately 3% of our objective.

Thanks to all our donors who helped make last year's 2014-2015 RP Campaign a huge success. Formal donor recognition will take place at the November program meeting.

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.

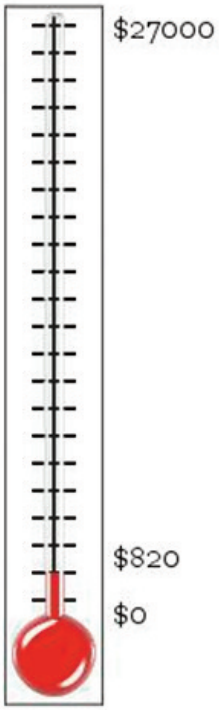
However, should you wish to make you donation using cheques, please make all cheques payable to **ASHRAE Research Canada**. My contact details are shown below, but I will gladly make arrangements to pick-up any cheques if need be.

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

Abbey Saunders
613.993.9277
fax: 613.957.9828
Engineering Services, Administrative Services and Property Management Branch
National Research Council Canada
Bldg M-19, 1200 Montreal Road,
Ottawa, ON K1A 0R6

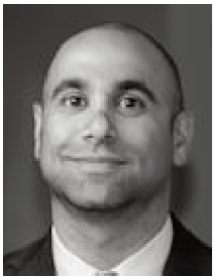
ASHRAE OVC link: https://ashraeottawa.simplesignup.ca/en/171/index.php?m=eventsList
ASHRAE Society link: https://xp20.ashrae.org/secure/researchpromotion/rp.html

ASHRAE Partner	ASHRAE Associate	Major Donor Silver
Major Donor Bronze	**Major Donor Antique**	**Honor Roll**



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.



President

Georges Maamari

2015-2016

OVC President

BPA

E-mail: *gmaamari@bpa.ca*

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.

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 *rodl@htseng.com* for more details.

Publicity

2015-2016 Publicity Committee Co-Chair

HTS Engineering Ltd.

E-mail: *rodl@htseng.com*

Surgeons' Coffee Break

Four surgeons were taking a coffee break and were discussing their work.

The first said, "I think accountants are the easiest to operate on. You open them up and everything inside is numbered."

The second said, "I think librarians are the easiest to operate on. You open them up and everything inside is in alphabetical order."

The third said, "I like to operate on electricians. You open them up and everything inside is color-coded."

The fourth surgeon said, "I like Engineers...they always understand when you have a few parts left over at the end..."

2015-2016
President
Georges Maamari
President-Elect
Abbey Saunders
Treasurer
Adam Graham
Secretary
Daniel Redmond
Governors
Richard Cameron
Chris Fudge
Aaron Dobson
Chris Frauley
Adam Moons
Past President
Steve Moons
Committees
Attendance
Sandy Taylor
Audit
Stephen Lynch
Capital Communiqué
Celine Baribeau
CRC
Georges Maamari
CTTC
Andrew Klassen
Grassroots Government Affairs
Richard Cameron
Financial
Sandy Taylor
Greeter
Mike Swayne
History
Aaron Dobson
Membership Promotion
Adam Moons
Celine Baribeau
Nominations & Awards
Robert Kilpatrick
PAOE
Abbey Saunders
Program
Jacob Hough
Research Promotion
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Special Events
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Adam Moons
Steve Moons
Student Activities
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Website
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