Communique



ASHRAE Ottawa Valley Chapter

DATE: Tuesday March 21, 2017

Techincal Session: 16:30, Social: 17:30, Dinner: 18:30, Program: 19:30

LOCATION: Algonquin College Restaurant International

1385 Woodroffe Ave, Building H, Room H100

THEME: **Student Activities**

PROGRAM: Refrigeration Energy Essentials

A review of the basic vapor compression refrigeration cycle and refrigeration system components will be used to learn which parameters and design choices have the most impact on refrigeration and air conditioning system efficiency. The presentation will examine different control strategies and technologies that are used to increase refrigeration cycle efficiency such as floating head pressure, floating suction pressure, sub cooling, expanders and ejectors. This topic will also explain coefficient of performance (COP) and how combined COPs are used.

SPEAKER: Greg Scrivener, Cold Dynamics Ltd

Greg Scrivener started in the refrigeration industry as an apprentice refrigeration mechanic in 1997 and completed his journeyperson certification in 2003 with an award for 'Most outstanding new Journeyperson". Continuing to work in the refrigeration industry, Greg completed a B.Sc. in Mechanical Engineering with distinction from the University of Saskatchewan in 2011.

Having worked in roles from all the way from mechanic to design engineer, Greg can offer a comprehensive view point on refrigeration related construction and design. In 2014, he founded Cold Dynamics and is now involved with refrigeration consulting work

including design, inspections, commissioning, advanced troubleshooting, energy auditing, control sequence optimizations, and training. Coupled with a passion for energy efficiency and the environment, Greg's unique experience leads to an in-depth understanding of the parameters affecting efficient refrigeration system operation.



Space is limited so please register online at the link below

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

https://ashraeottawa.simplesignup.ca/en/2212/index.php?m=eventSummary

http:/www.ashrae.ottawa.on.ca

President's Message

As the calendar dates flip towards spring, and we head into what we hope to be warmer weather we also enter the home stretch of our **ASHRAE** year. We wrapped up February, and hopefully the last of the cold weather, with a very successful **ASHRAE** Curling **Bonspiel**. A special thanks to Chris Healey, his team of volunteers, and all participants for another successful **ASHRAE** social event.

This month's theme is **Student Activities**, and to that end we have two really exciting events planned. Thanks to the hard work and dedication of our student activities co-chair **Peter Shaw-Wood**, on March 2nd a number of students will be participating in a **Job Site Tour** Carleton University representatives from Carleton and Modern Niagara. Our other student activities co-chair Adrianne Mitani has been busily working to ensure the success of our upcoming Career Fair scheduled for March 3rd, also hosted at Carleton University. We encourage many facets of our industry to participate in the Career Fair, and on the same token we will be encouraging student participants to attend the March Program meeting. Please take the time to speak with a student and chat about their studies and a possible future in our industry. As usual, we will also be looking for student meal sponsors. When you register for the next meeting I encourage you to consider sponsoring a student meal.

Our next program meeting will be held on March 21st, and we are back at **Algonquin College** in the typical venue location, **Restaurant Internationale**. Please refer to the program article for location and program details. The upcoming program will provide insight on the latest revisions to CAN/CSA B52 - Mechanical Refrigeration Code. All

members are encouraged to attend early again this month, as prior to the program meeting will be hosting a technical session on **Electrical Basics for the HVAC Industry**. To register for the upcoming March meeting please visit our website at www.ashrae.ottawa.on.ca

March brings with it our deadline for CTTC Technology Award submissions. Our CTTC chair Jeff Watson spoke at the February meeting about how easy it is to submit a project for consideration. I encourage anyone with projects fitting, or questions about the application process to contact Jeff. It would be great to see another strong turnout from our local designers with Technology Award submissions.

Our Research **Promotion Campaign** is in full swing now with a calling campaign about to be initiated. If you have not received a call from our RP committee members yet, please expect one in the near future. Feel free to be proactive and contact **Adam Graham** directly, or visit the website to donate. Our membership and their personal donations are what make our RP campaign so successful, and I encourage all individuals and organizations to continue with your generous donations to help us achieve our goal.

Every year at this time, we officially open the floor for nomination of chapter members to positions as next vear's officers and executive members. Our Nominations and Awards Committee, led by Bob **Kilpatrick** take will recommendations from members, past-presidents, officers, and others into account when reviewing the future leadership of our chapter. If have been contemplating increasing your participation in our local ASHRAE chapter, please see



President
Abbey Saunders
2016-2017
OVC President
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myself or Bob. Additionally, if you would like to suggest a colleague or friend that you feel would be an asset to the chapter, please contact us to discuss leadership roles within the chapter and what those roles provide chapter. Encouraging members to take action in shaping our chapter is one of our primary objectives. The next couple months are the chance for members to have the biggest impact on the leadership of the chapter for the years to come. There are many roles to fill, and I can assure you that participation in ASHRAE is a rewarding experience. We are also reviewing membership for various awards at the Chapter and Regional level, so I remind everyone to please update your **ASHRAE Society Bio** so you may be considered for awards you may be eligible for.

As I mentioned in the last issue of the communique we will be hosting our second technical seminar on March 22, Canadian Refrigeration Safety Code & VRF Technology in our Canadian Climate. Check out this month's communique for additional details, or visit the website to register at the link below.

Lastly, with spring just around the corner I know everyone is eager to attend our March meeting. Please take the time to register, and I look forward to seeing you all at the next meeting.

Sincerely, **Abbey Saunders 2016-2017 OVC President**

link: https://ashraeottawa.simplesignup.ca/en/2173/index.php?m=eventSummary

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Technical Session: ELECTRICAL FUNDAMENTALS FOR HVAC DESIGN

If you have ever felt that Electrical Fundamentals are a mystery, then you need to attend this Tech session. **Jeff Siddall** of **Morrison Hershfield** will be giving an introduction to **Electrical Power and Lighting for the HVAC industry**.

He will go over the main components and their function. He will review topics such as:

- Common voltages such as 120 / 208 / 347 & 600 V
- The purpose of transformers and the heat release impact on Mechanical design
- Single phase vs three phase power
- Is 347 V still valid with the advent of LED lighting?
- What is the Heat release from newer lighting fixtures
- What is the purpose of Starters, MCC's and VFD's
- When do you need dry contacts and relays?
- What systems belong on Emergency Power?
- When do you need more than one Automatic Transfer Switch?
- The need to coordinate with Electrical regarding what voltages are available and why 240 volt is not usually a good option

He will also describe the information that the Electrical designers need from the Mechanical designers. The importance of performing an M&E coordination review prior to tender. He will emphasize why changing all the motor sizes the day before tender is really not such a good idea. He will explain how to cool a transformer vault in accordance with Hydro requirements. He will also give an introduction to electrical single line drawings and how to read them.

We look forward to seeing you there.

What You Missed

President Abbey Saunders called the fifth meeting of the 2016/2017 season to order. The meeting took place at Algonquin College. President Saunders introduced the Board of Governors and the Executive.

Secretary Chris Fudge introduced the guests for the evening and noted that the ASRHAE Design Essentials 1 and 2 are taking place in Toronto, May 8th -12th 2017.

Treasurer Dan Redmond provided an update on the ASHRAE Winter meeting he attended in January. Two big takeaways from the winter meeting for Dan were; from Region 11 Tim McGinn won the nomination for DAL. Darryl Boyce was nominated as Society Treasurer.

Incoming Society Treasurer Darryl Boyce spoke to the honor of being nominated for this position and thanked the chapter for their support. Mr. Boyce will be the 6th Society president to come from Canada.

CTTC Chair Jeff Watson provided an update on CTTC. Jeff spoke to the

role of the CTTC Chair.

The main purpose of CTTC being to transfer technical information from Society and industry to the chapter members (press releases/bulletins/ etc). Some of the vehicles used by ASHRAE for this are the Distinguished Lecturer Program. The Ottawa Chapter is fortunate enough to have 3 DL's this year. ASHRAE **Webcast** is another means ASHRAE disseminates technical informationit is an annual free webinar which takes place in April. This year's webcast is April 20 and the topic is "Using Analytics to Drive Building **Performance**". Putting together the Program is the responsibility of the CTTC – our Chapter has a dedicated Program Chair for this task. program is very important as it is what attracts new members and retains members. Members are the lifeblood of ASHRAE.

President Abbey Saunders invited each of the table top speakers to come to the podium to say a few words about their respective table tops. **Trevor Freeman** from **Hydro Ottawa** spoke briefly about incentive programs that will be covered in



Secretary Chris Fudge 2016-2017 OVC Secretary Master

E-mail: cfudge@master.ca

detail later tonight. **Ahmed Farag** from **Master** discussed briefly **RenewAire**.

Student Activities Co-Chair Peter Shaw-Wood provided an update on the tour that will take place at Carleton University on March 2nd. The tour will be guided by Guillaume Beaudin. Student Activities co-chair Adriane Mitanni discussed the upcoming career fair on March 2nd at Carleton University. There will be students at this career fair from Colleges and Universities from the Ottawa region.

RVC Student Activities Ben Oliver provided an update on Student Activities at the regional level.

Adam Graham provided an update on research promotion and announced donation to RP of 5,000

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from **Hydro Ottawa**. He also discussed the upcoming **ASHRAE OVC seminar** that will be taking place on March 22nd. The seminar will be two parts, each a half day. Part one will be **CSA B52** while the second half of the seminar will be focused on **VRF**. Details of the seminar and registration are located on the ASHRAE OVC web site.

Nick Lea did an overview of TC's, how to join a TC and the TC he is involved in.

President elect Adam Graham and President Abbey Saunders drew the winning ticket for the RP raffle. **Steve Moons** won the draw. The tickets were donated by **Walmar**.

President Saunders highlighted both Mr. Freemans and Mr. Sings back grounds and qualifications. President Saunders invited Trevor Freeman to the podium to start the first half of the evening's program.

The purposed of the department for which Mr. Freeman works is to building owners and facilitate managers to reduce their buildings energy consumption and offset demand. Mr. Freeman started his presentation with the definition of retro commissioning; systematic process to improve an existing buildings performance. There are several different terms used in the area of commissioning; building commissioning, re-commissioning, retro-commissioning, ongoing Retrocommissioning. commissioning is used for buildings that have never been may commissioned properly or buildings that have undergone a lot of change. Ongoing commissioning is what after building takes place commissioning retroor commissioning.

Retro-commissioning focuses on operation and usually involves an energy audit. Operations include sequences of operation, functional testing and ultimately system optimization.

Why would a building owner look at doing retro-commissioning? system will operate more efficiently which means less operating cost. The system overall performance should be improved. It is also a vehicle for obtained a more streamlined maintenance process. Building operator training is also part of this process. Better system means performance happier occupants and streamlined maintenance and operator training mean further reductions in operating costs.

Typically retro-commissioning projects save roughly 16% on energy and have a payback period of 13 months. In the Ottawa area the stats are similar. Five buildings were looked at the average savings was 16% while the average payback was 2.2 years. On the Ottawa projects roughly 50% of the energy audit cost was covered by Hydro Ottawa.

Hydro Ottawa has programs that can help building owners reduce the cost for; energy audits, retrocommissioning studies, building system audits. Audit funding program was reviewed in detail. There are several paths to getting funding for projects with Hydro Ottawa. There are three main paths; audit funding programs, existing building commissioning, process and system engineering studies.

If you are considering doing a project there are some important steps to follow to make sure incentives are received at the end of a project. The first step is to establish eligibility of your project by getting in touch with Hydro Ottawa as soon as possible (before any work is done). Once you have established eligibility submit your application and obtain pre-Once the project is approval. submit post-project completed documentation and then receive cheque.

Martin Sing begins the second half of the evening's presentation.

Mr. Sing began by providing some additional details on commissioning. Additional details of the process were highlighted. The planning phase, investigation phase, implementation phase and hand off phase were reviewed. In the planning phase the merits of the project are reviewed with the owner, the site walk through is done, the retro-commissioning plan is made and the team assembled that will do the work of the project. investigation functional phase, testing, site monitoring, facility documentation is reviewed, a master list of findings is compiled and then operational improvements prioritized and selected. In the implementation phase implementation plan is developed, selected operational improvements are implemented and the results are verified. In the hand off phase, a final report is developed, system completed, manual is recommissioning plan is developed and operator training is performed.

Mr. Sing reviewed some examples of real projects where retrocommissioning was performed. 275 **Slater** was the first project in Ottawa that received **LEED Silver** for The building existing buildings. recently underwent а commissioning two years ago. When it received the LEED Silver rating seven years ago it received energy star score in the mid 80's. The recent retro commissioning findings were 9% energy savings was possible with a simple payback of 4 years. Identified areas of improvement were refining the free cooling loop operation, AHU setpoint optimization and unoccupied space temperature control.

The **Sir Wilfred Laurier Building** was pursuing **LEED Gold** Certification. Retro-commissioning process identified a 29% energy reduction was possible with a 5 year





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simple payback. Measures were from very simple to a chiller replacement. The building operators over time had changed the operation of the building in order to address tenant complaints. The result was the building operated much less Much of the energy efficiently. improvements were gained from reversing some of the changes that were made. Economizer operation was refined. The economizer dampers were locked out although the controls were sending a signal to modulate the dampers. Exhaust fans continuously although the building was not occupied in the evenings. Set point adjustment were also made. The chiller plant was also looked at. It was found the chiller plant they had was oversized. The tonnage of the plant was reduced from 800 to 500 tons. The money

saved was invested in other changes made in the building was well as a more efficient chiller.

TD Place was a combination of an audit and retro energy а commissioning project. The retrocommissioning project was done on the south side of the building. This part of the building was only 1.5 years old at the time of the project. Significant energy savings measures 12% energy were identified. savings were identified with a simple payback of 6 years. Most of the energy savings came from low cost to no cost measures and 4% came from capital improvements. Some of the key findings on this project were event based control and unoccupied control, set point adjustments, sensor repair, additional BAS control as well as

exhaust fan and pump optimization. Some of the low cost/no cost measures have been implement. None of the capital improvements have been made yet. The next step of the project is to get approval from the owner and implement the remaining recommendations. energy audit was done on the north side of the building because most of this part of the building is nearing end of life.

President Abbey Saunders thanked both speakers and presented them President Saunders with a gift. reminded the audience of the career fair, CTTC Tech Awards Submission and the upcoming ASHRAE Design Essentials course.

Meeting adjourned at 21:30

Smith + Andersen

TOPIC:

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ASHRAE OVC Seminar

DATE: Wednesday, March 22, 2017

Half Day Seminar - Morning (8:3AM - 12:00)

LOCATION: Master Group Ottawa Training Room

25H, North Side Road, Nepean, ON, K2H 8S1

Canadian Refrigeration Safety Code Seminar

PRESENTER: **Greg Scrivener, President Cold Dynamics**

ASHRAE Distinguished Lecturer

Greg Scrivener started in the refrigeration industry as an apprentice refrigeration mechanic in 1997 and completed his journeyperson certification in 2003 with an award for 'Most outstanding new Journeyperson". Continuing to work in the refrigeration industry, Greg completed a B.Sc. in Mechanical Engineering with distinction from the University of Saskatchewan in 2011.

Having worked in roles from all the way from mechanic to design engineer, Greg can offers a comprehensive view point on refrigeration related construction and design. In 2014, he founded Cold Dynamics and is now involved with refrigeration consulting work including design, inspections, commissioning, advanced troubleshooting, energy auditing, control sequence optimizations, and training. Coupled with a passion for energy efficiency and the environment, Greg's unique experience leads to an in-depth understanding of the parameters affecting efficient refrigeration system operation



This presentation is specific to the regulatory requirements of the CSA B52 code in Canada. The presentation will review the code requirements that apply to the location and installation of refrigerant piping in both industrial and commercial applications. Because of the regulatory environment in Canada there are large sections of CSA B52 that do not have significant enforcement, possibly leaving design engineers responsible for compliance. We will review the installation of chiller plants, split systems and VRF (Variable Refrigerant Flow) piping as well as calculations of occupancy based refrigerant concentration limits. Changes have been made to the refrigeration code in the USA that will eventually make their way into Canadian code, will also be reviewed.

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DATE: Wednesday March 22, 2017

Half Day Seminar - Afternoon (1PM - 4:30PM)

LOCATION: Master Group Ottawa Training Room

25H, North Side Road, Nepean, ON, K2H 8S1

TOPIC: VRF Technology in our Canadian Climate

PRESENTER: Jean-Samuel (JS) Rancourt, Principal, DXS Engineering

Jean-Samuel (JS) Rancourt is a founding partner of DXS, a subsidiary of HTS focusing exclusively on VRF technology. JS entered the HTS family of companies via the co-operative internship program. JS is a graduate from the University of Waterloo, graduating Valedictorian from his Mechanical Engineering class.

JS used the co-operative program to spend some time in the HVAC industry in the HTS-Ottawa office and in the HTS-San Antonio, Texas office in 2008 and 2009. After spending some time within the contracting and project management team of HTS at the Toronto headquarters, JS launched DXS in Ontario in June of 2012. Since then, JS has designed and managed the largest high-rise condo, school, hotel, and school residence project with VRV technology in Canada, including the largest VRV project in North America. JS now leads the engineering and owner/developer sales of DXS, and is in charge of business development.

OVERVIEW:

Variable Refrigerant Flow [VRF] technology has swept away the rest of the world over the past three decades. VRF is now becoming a mainstream HVAC option in Canada, with multiple 100+ ton projects underway across the country, and as the fastest growing segment of the North American HVAC industry.

VRF has unique advantages, mainly due to buildings no longer needing any water components for HVAC when air-source VRF is used. VRF is a space efficient alternative to central plants, removing the need for chillers, cooling towers, heat exchangers, pumps etc. Using small and flexible refrigerant pipes to distribute heating and cooling around buildings instead of water, VRF is ideal for retrofit applications, or for new-builds with footprint or floor height constraints.

This seminar will introduce VRF technology, discuss its benefits and challenges in our Canadian climate and with our construction standards, and provide insights on designing intelligent VRF systems.

Part I: VRF Overview (90 minutes)

- Introduction
- VRV 101
- Application & design
- Water-cooled VRV
- Refrigerant & CSA B52

Part II: Advanced Modules (90 minutes)

- Heat Recovery systems design optimization
- Designing for low ambient heating and cooling
- VRV Controls design and integration

Space is limited so please register online ASAP.

Half Day: \$175 for ASHRAE OVC members, \$225 for non-member Full Day: \$300 for ASHRAE OVC members, \$375 for non-member

Registration will close March 17, 2017

Drinks and snacks will be provided. Please contact Sandy Taylor with any special dietary concerns. sandy@ashrae.ottawa.on.ca





Steve Moons Principal

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Chapter Technology Award

Greetings from the CTTC Chair,

Just a friendly reminder regarding that the deadline for applications for the Ottawa Valley Chapter ASHRAE Technology Awards will be **March 15, 2017**. The Awards Presentation

will occur at the April Chapter Meeting.

For those wishing to learn more about the Awards Program, an overview can be found on ASHRAE's website.

Committe Chair

Jeff Watson

2016-2017 OVC CTTC Chair

Chorley + Bissett

E-mail: Jeff.Watson@chorley.com

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

YEA

Hi YEA!

I am excited to announce that we have finalized an event for Friday, March 24th. We will be testing out our lumber jack skills at **BATL Ottawa**, axe throwing!

An email invitation will be sent out shortly, this will include all the event

details. Be sure to register early as spots will be limited.

Thank you for the support and I look for forward to seeing you at the next event.

Thank you for your support!

Joe Della Valle



Committee
Chair
Joe Della Valle
2016-2017
OVC YEA Chair
Walmar Ventilation

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Table Top Display

If you're looking to communicate the value of your product, there is no better way than to invest in a tabletop at an upcoming **ASHRAE OVC** meeting. Highly attended and highly regarded, our monthly meetings can afford you the opportunity to display your new technologies to an eager group of HVAC/R engineers and contractors. If you wish to review the themes of each meeting to find an appropriate topic, please feel free to contact me.

Thanks to **The Master Group** and **RenewAire**, as well as **Ottawa Hydro**, for their involvement in the **February** meeting. Looking forward to seeing the great products offered at our March engagement!

Please contract **Adam Moons** (amoons@master.ca) to secure yours today! Cost for able tops is 225\$ and spaces are filling up quickly, so book your table-top today!



Govenor
Adam Moons
2016-2017
Table Top Chair
Master Group

E-mail: amoons@master.ca

Payment is to be made through the online system prior to the date reserved. Follow the link below: https://ashraeottawa.simplesignup.ca/en/1775/index.php?m=eventSummary

JP2g Consultants Inc. engineers · Planners · Project Managers

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News Update

Preliminary Energy Savings ASHRAE/IES for Announced 2016 Energy Standard

ATLANTA – More than 30 percent energy savings can be achieved using the 2016 version of **Standard 90.1**, according to recent analysis conducted by Pacific Northwest National Laboratories (PNNL) in support of the U.S. Department of **Energy (DOE) Building Energy Codes Program.**

An update on the preliminary results of the 90.1-2016 progress indicator report was made at the recent **2017 ASHRAE** Winter Conference. **ANSI/ASHRAE/IES** Standard 90.1-2016, Energy Efficiency Standard for Buildings Except Low-Rise Residential Buildings, was published in October 2016.

PNNL conducted the energy savings analysis, using the 2004 standard as These baseline. results considered preliminary and are expected to be deemed final in October 2017 when DOE publishes its final determination.

PNNL's analysis shows for the whole building energy consumptions, national aggregated site energy savings are 34.1 percent and energy cost savings are 34.2 percent, when compared to the 2004 standard.

"For more than 40 years, ASHRAE and IES members have strived to build upon the energy savings measures in each update of Standard 90.1, most recently released in its 10th edition," Tim Wentz, ASHRAE President, said. "Each year the challenge grows as technology becomes more efficient. That we continue to build upon the savings speaks to the ability of our industry to adapt and transform as those technologies change and more advanced technologies become more

cost effective."

"The Illuminating Enaineerina Society has actively engaged with *ASHRAE* since 1975 providing technical support and co-developing standards," Mark Lien, IES Industry Relations Manager and liaison to the Standard 90.1 committee, said. "Compliance with recommended light levels is verified using a database of *luminaires.* These baseline products were reevaluated and updated to reflect the market shift toward higher efficiency lighting sources. We are proud of the dedicated members of the Lighting Subcommittee and the Standard 90.1 committee and their significant contribution to the energy savings achieved by the 2016 version."

On a nationally aggregated level, building-type energy savings range from 11.9 percent (fast food restaurants) to 48.6 percent (schools) and energy-cost savings from 15.3 percent (large offices) to 49.8 percent (schools). These figures include energy use and cost from the whole building energy consumptions including plug and process loads.

Sixteen different building prototypes were modeled in 17 different climate locations for a total of 272 building types in various climate zones that were incorporated into this analysis.

The energy reduction calculation was achieved through more than 120 addenda incorporated standard related to changes to requirements. The major changes in those addenda:

- updated controls for emergency
- improved window U-factor and solar heat gain coefficient
- improved coiling door air leakage requirements
- updated parking lot occupancy

Committe Chair

Jeff Watson

2016-2017

OVC CTTC Chair

Chorley + Bissett

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controls

- updated opaque door U-factor
- established minimum chilled water systems coil selection Delta T
- updated transformer efficiency requirements
- added domestic hot water branch insulation
- reduced heat rejection variable frequency drive (VFD) threshold
- raised minimum exhaust air energy recovery threshold
- reduced exterior and interior lighting allowances
- updated fenestration orientation
- included service factor in heat rejection VFD threshold
- updated motor efficiencies
- improved hotel/motel guest room control
- reduced pumping VFD threshold
- required high efficiency dwelling unit liahtina
- reduced retail lighting adder
- eliminated computer room economizer threshold
- removed ventilation optimization exception for energy recovery ventilator
- updated transfer air requirements
- updated climate zones

ASHRAE Announces Call **Papers** For 2018 Winter Conference, January 20 - 24, Chicago

ATLANTA **ASHRAE** has announced a call for papers for its 2018 Winter Conference Chicago, IL, January 20-24 at the Palmer House Hilton.

This conference includes tracks on







Building System Surveys / Design & Retrofit AutoCad System Design & Customization Ross McIntyre, P.Eng. Principal, Designated Consultant, Mechanical Engineer Roderic S. Potter Principal

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what ASHRAE is most known for standards, fundamentals and applications, systems and equipment, tracks on industry trends resiliency modeling and throughout a building's life cycle, and tracks addressing specific disciplines, as transportation conditioning, tall buildings and heat exchange equipment.

"Engineers and designers continue to advance designs to reduce the ecological impact of our built environment on the world around us. It has practically become second nature." Michael Collarin, chair of 2018 **ASHRAE** Winter the "However, and Conference, said. seemingly more so in recent years, the industry has needed to take steps to mitigate the impact of the world around us on our built environment. This is especially the our transportation, in government, and mission critical arenas, where the loss of critical infrastructure can have severe consequences, including the loss of life. The tracks and programs for the ASHRAE Winter Conference will focus on resources to design, build, control, commission and operate facilities and infrastructure that need to not only be efficient, but resilient."

The "Earth, Wind & Fire" track aims to help owners and design teams identify and plan for natural elements and other possible disasters that would otherwise be crippling. Papers that evaluate various systems (including HVAC, building envelope, structural, filtration, and on-site design strategies, power), construction measures, and building operation are sought. **Papers** addressing the worldwide and implementation of codes standards to harden facilities and are sought. conference will also include an HVAC&R focus on fundamentals, applications, systems, equipment, refrigeration and modeling.

The "Standards, Guidelines and Codes" track addresses how these are constantly evolving with the intent on improving the built environment and its systems and the need for designers, contractors, architects and owners to keep up with the continuing changes in the current cycle as well as to prepare for future changes. The papers and sessions highlight the changes to the standards and guidelines, their projected path and optimum design techniques to meet or exceed the standards.

The "Fundamentals and Applications" track lays the for understanding foundation applications in engineering. Key components include thermodynamics, psychrometrics, fluid and mass flow, IAQ, and building envelope. This track provides opportunities for papers and presentations of varying levels across a large topic base. Concepts, design elements and shared experiences for theoretical and applied concepts of HVAC&R design are included.

The "HVAC&R Systems and Equipment" track focuses on selection, which is paramount to HVAC&R design. Papers and programs in this track will assist designers, engineers, and operators in the design, selection, and operation of HVAC&R systems and equipment.

Designing for natural elements and other possible disasters often requires specific elements of building design and construction. From materials to stabilizing elements and simulations to specifications, these options must be incorporated. The "Earth, Wind and Fire" track will deliver on modern strategies to address all of these conditions. Be prepared to be blown away by industry practices to prevent disastrous results.

The explosion of computational

and capacity data collection capability is rapidly expanding the scope, complexity and practical applications of modeling both during design, but even more so for fault diagnostics detection, operational optimization. Papers and presentations are solicited related to all aspects of building modeling, with a particular interest in successful applications addressing operational phases for the "Modeling throughout the Building Life Cycle" track.

Also, papers are sought for tracks focused on "Tall Buildings, "Transportation IAQ and Air Conditioning" and "Heat Exchange Equipment."

In addition, a "Refrigeration" minitrack will be presented at the 2018 AHR Expo, Jan. 22-24, McCormick Place. Admission will be free. The AHR Expo is expected to attract some 60,000 registered visitors and exhibitor personnel.

ASHRAE offers two types of paper submissions:

Conference Papers: Abstracts due March 1, 2017. Upon acceptance, final papers will be due July 7, 2017. These "final" papers undergo a single-blind review, are submitted as a PDF and have an eight single-spaced page maximum length.

Full Technical Papers, which are due March 1, 2017. Papers submitted for review must be both technically accurate and clearly written. These papers undergo a rigorous double-blind review and can be a maximum of 30 double-spaced pages.

The technical program will be announced in September 2017.

To submit a conference paper abstract or a technical paper and for more information about the conference, visit:

www.ashrae.org/chicago.





Sylvain Chenier, P. Eng., ing., LEED®AP Vice President - Mechanical Sylvain.Chenier@mckeeottawa.ca 1785 Woodward D rive Ottawa, ON K2C 0P9 CANADA Tel.: (613) 723-9585 x128 Fax.: (613) 723-9584 www.mckeeottawa.ca



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Research Promotion

for ASHRAE Research Canada!

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 Abbey and her committee have left me big 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.

Our objective for the 2016-2017 RP Campaign is \$29,000. 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.

Georges Maamari, Abbey Sauders, Michael Swayne, Robert **Lefebvre**, and **Frank Bann** have all agreed to help support this cause as a part of the ASHRAE RP Committee. Please contact any of us with your RP questions. We have started our annual calling campaign so expect to hear from one of us shortly if you have not yet.

Thanks for your continued support continue at each program meeting in support of our 2016-2017 RP Campaign. Last meeting's tickets for the March 2, Sens v. Avalanche game were graciously donated by Walmar Ventilation! Walmar also donated another set of tickets for the **Curling RP raffle**. These two events raised a combined \$1,025 for Research. A special thanks to all that have donated tickets. We are always looking for donors that may have something to contribute for our monthly raffles. Please contact me if interested.

> As of Feb 27, 2017, we have raised \$17,195 towards our campaign goal, approximately 59% of our objective. Thanks to all our donors who continue to support the RP Campaign.

> Thanks to all our donors who continue to support the Campaign.

> A list of current 2016-2017 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 2016-2017 RP Campaign are by clicking either of the links below.

> However, should you wish to make



President-Elect Adam Graham 2016-2017 **OVC President-Elect** HTS

E-mail: adam.graham@hta.com

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!

Adam Graham

ASHRAE OVC President Elect, Reseach Promotion Chair

Attn: Adam Graham HTS Ottawa 1646 Woodward Drive, Ottawa, ON, K2C 3R8 T 613.728.7400x2804 C 613.889.6928

The raffle draws for event tickets will you donation using cheques, please **ASHRAE Partner ASHRAE Associate Major Donor Silver** Hydro Ottawa Longhill Energy Goodkey Weedmark and Associates Ltd. Nortec Humidity Walmar Ventilation **Major Donor Bronze Major Donor Antique Honor Roll** Airtron Abbey Saunders Adam Graham Chris Fraulev Trane Richard Cameron The Mechanical Contractors Daniel Redmond Association of Ottawa (MCA) Chris Fudge Total HVAC Adrianne Mitani JCI Aaron Dobson Steve Moons Rvan Dickinson Michael Swayne Robert Lefebvre Robert Kilpatrick Adam Moons

\$29000 \$17195 \$0

ASHRAE OVC link: https://ashraeottawa.simplesignup.ca/en/1773/index.php?m=eventSummary

ASHRAE Society link: https://xp20.ashrae.org/secure/researchpromotion/rp.html

Curling Wrap-up

annual **ASHRAE Curling Bonspiel** took place this past Friday Feb 24 at the **Nepean Sportsplex**. We had 18 teams entered and by all accounts, everyone had a good time. The winning team, entered by Total **HVAC**, consisted of:

Tom LeRoy Gavin Symonds Philippe Brunet Andrew Douma

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: \$1,440.00, this brings the total to \$12,630.00 since we started 8 years ago. As well, we ran a raffle during the dinner part of the evening, raising

\$515.00 for **ASHRAE Research** while a few lucky folks in the crowd walked away with some gift cards, wine, Sens Tickets, etc. Thanks to Christine Kemp and





Committee Chair Chris Healv

Walmar

E-mail: ChrisHealey@walmar.net Cathy Godin for helping out.

I would like to thank Capone's Catering for a great meal and Stan Millross for being our Emcee for the evening. We look forward to seeing everyone next year. Next up for ASHRAE on the social calendar will annual ASHRAE Golf be the Tourney, it is scheduled for June 20, once again at The Marshes Golf Club, look for details soon.

Chris Healy

Winter Meeting News and Wrap-Up

Canadians Win Nominations at him on this incredible achievement. **ASHRAE Winter Meeting**

Two Canadians won the nominations for Society positions at the ASHRAE Winter meeting in Las Vegas:

Tim McGinn from Region 11 won the nomination for Director at Large (DAL).

Darryl Boyce from Region 2, and from our Ottawa Valley Chapter, won the nomination for Society Treasurer. Darryl will now become the 2017-2018 ASHRAE Society Treasurer and afterwards will be on the track of becoming the future Society President-Elect in 2018-2019 and the future Society President in 2019-Darryl has proven very dedicated to ASHRAE over the years and we would like to congratulate

Winter Meeting Wrap-Up

2017 **ASHRAE** The Winter **Conference** and the **AHR Expo** saw record attendance with industry collaboration a strong focus of the events.

The 2017 ASHRAE Winter Conference took place Jan. 28-Feb. 1 at Caesars Palace with the ASHRAE cosponsored AHR Expo held Jan. 30-Feb. 1 at the Las Vegas The two **Convention Center.** events exceeded their recordbreaking attendance from Conference and Expo that were held in Las Vegas in 2011.

In total, 3,579 people attended the Conference, making it the most well



Secretary Daniel Redmond 2016-2017 **OVC Treasurer Carleton University**

E-mail: DanielRedmond@cunet.carleton.ca

attended Winter Conference in recent years. The attendees represented 58 countries and included 537 firsttimers.

The AHR Expo set several records, including attendance of more than 68,000 registered visitors exhibitor personnel, as well as 500,159 square feet sold. The Show was by far the largest and best attended Expo in the Western states, 1,968 with some exhibiting companies.

March 2017 Capital Communiqué

NOMINATIONS AND ELECTIONS **ANNOUNCEMENT**

Hello everyone,

With the recent onset of somewhat spring-like weather, the time has arrived when as members of the Ottawa Valley Chapter, our thoughts turn to the future of our Chapter, as we consider nominations for next year's **Executive** and **Board** of Governors.

behalf of On the Nominating Committee, Ι am pleased announce the following eliaible members to hold office as the Chapter Executive for 2017-2018, and the positions for which we are seeking nominations:

President: Adam Graham President-Elect: Dan Redmond

Treasurer: Chris Fudge

Secretary: Open-nominations invited Board of Governors: Nominations are also invited for positions on the Board of Governors, although the number of available positions is not vet determined as the committee gauges the interest and availability of the existing Board members to return for another term.

complete the nominations process, we will also be asking for nominations from the floor at the March Chapter meeting. To be considered for the **Board** of Governors, nominees must be Chapter members in good standing Society and must have consented either orally or in writing to have their name put forward.

The election to Chapter officers is a distinct honour bestowed **ASHRAE** members by their peers, and in anticipation of their dedication to the continued success of the



Committee Chair Robert Kilpatrick 2016-2017 Nominations and Awards Chair NRC-CNRC

E-mail: Robert.Kilpatrick@nrc-cnrc.gc.ca Chapter.

recommendations for the Final available positions on the Executive and the Board of Governors will be made by the Nominating Committee in the coming weeks and will be announced at the April Chapter meeting, with the installation at the May Chapter meeting.

Thank you for your participation in this important step in ensuring the future success of the Ottawa Valley Chapter!









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Larry Gravelle

Yorkland Controls represents leading control systems and component manufacturers. Integrated solutions for Lighting, Card Access, CCTV and Building Automation



Membership Update

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

Mr Michael Brown Mr Fahed Abdou Mr Alexandre Sequin Mr Simbarashe Chakanyuka II **Mr Ryan Hiemstra Miss Marie-Eve Hodak**

At any time, if you have any guestions or comments regarding your

ASHRAE membership, please do not hesitate to contact me at: cbaribeau@bpa.ca

Thank you all for the continued support and participation in your local ASHRAE chapter. Looking forward to seeing everyone at the next **ASHRAE** meeting.



Committee Chair Celine Baribeau 2016-2017 Membership Committee Chair **BPA**

E-mail: cbaribeau@bpa.ca

March 2017 Capital Communiqué

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



Treasurer
Daniel Redmond
2016-2017
OVC Treasurer
Carleton University

E-mail:

DanielRedmond@cunet.carleton.ca

advertising through the ASHRAE Ottawa Valley website today.

Rates for career opportunities ads are as follows:

Chapter Member: \$50/month, \$80/2 months, \$100/3 months

Non-member: \$250/month

Note: Purchase of additional months will only have a discounted rate if purchased up front. Otherwise the standard rate will apply for additional months.

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 through the online system and contact **Daniel Redmond** (danielredmond@cunet.carleton.ca) with any questions. Follow the link below for payment.

https://ashraeottawa.simplesignup.ca/en/1774/index.php?m=eventSummary

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
2016-2017 Publicity
Committee Co-Chair
HTS Engineering
Ltd.

E-mail: rodl@htseng.com

Payment will be made through the online system. Follow the link below for payment.

https://ashraeottawa.simplesignup.ca/en/1776/index.php?m=eventSummary

Ads will **now require prepayment**. All of last year's ads will appear in the Communique for the first month of this year to allow time for payment for the upcoming year. Ads will be refreshed accordingly in the second Communique.

Publicity 2016-2017 Publicity Committee Co-Chair HTS Engineering Ltd.

E-mail: rod.lancefield@hts.com



2016-2017 **President** Abbey Saunders **President-Elect** Adam Graham Treasurer Daniel Redmond Secretary Chris Fudge Governors Richard Cameron Adrianne Mitani Aaron Dobson Chris Frauley Adam Moons **Past President** Georges Maamari Committees **Attendance** Sandy Taylor Audit Steve Moons Capital Communiqué Celine Baribeau CRC Abbey Saunders **CTTC** Jeff Watson **Grassroots Government Affairs** Richard Cameron **Financial** Sandy Taylor Gréetér Mike Swayne History Aaron Dobson Jeremy Strong **Membership Promotion** Celine Baribeau **Nominations &** Awards Robert Kilpatrick PAOE Adam Graham **Program** Jacob Hough Research **Promotion** Adam Graham Roster Georges Maamari **Special Events** Chris Healey Andrew Douma Adam Moons Steve Moons Student **Activities** Adrianne Mitani Peter Shaw-Wood

Table Top

Adam Moons

YEA

Joe Della Valle

WebsiteRoderic Potter

Manufacturer's Agents and Distributors

JUNIOR ESTIMATOR

Walmar Ventilation Products is currently seeking someone to join our team. The opportunity that we now have available is **Junior Estimator**.

Since our beginnings in 1973, Walmar Ventilation Products has become a leader in providing Ventilation, Filtration and Heating products to our customers. An important part of our success is the quality of our personnel, we are proud to have such dedicated staff and boast about the service that we provide.

Your role would be to work closely with our senior estimator and monitor all construction websites, print plans and specifications. This information is to be maintained in CRM along with recording all addenda's and project specific information.

Once you are trained on all the products that Walmar represents, you will be ready to take off and quote all jobs out for tender.

- This is a full time position complete with a competitive salary, and benefits.
- HVAC Experience is considered an asset

If you think this is a good opportunity for you and would like to learn more about joining us, please send your resume to:

Christine Kemp V.P. of Sales Walmar Ventilation Products christine@walmar.net



Outside Sales Representative (Ottawa, ON)

The successful candidate will promote and sell different HVACR products essentially to contractors, engineering firms and building owners. He will be responsible for prospecting and developing new business as well as continuing to build on existing relationships between The Master Group and its existing customer base.

Principal tasks:

Promotion of Master products to clients (contractors, engineering firms, dealers and owners)

- Evaluation of client's needs & resources and recommendation of appropriate products
- Writing of product technical specs
- Presentation of technical drawings/documents
- Preparation of buying & pre-purchase documents
- Maintain sales forecasting reports
- Presentation of product applications for use in HVACR systems (formal presentation with catalogs or audio/video material)
- Acquire required technical knowledge in order to promote products (academic or manufacturer training)

Management of client accounts

- Development of existing and potential clients & solicitation
- Preparation of annual sales budgets for territory & proposals for client accounts
- Responsible for the use of the CRM in client account management
- Document account activities, generate reports and keep records of business transactions with customers and suppliers
- Responsible for developing and identifying design build accounts and markets.

After sales service

- Contacting customers after the sale to resolve problems and ensure follow up
- Ability to resolve technical problems related to products

Marketing & promotion

- Selling price: coordination with purchasing & sales departments
- Marketing tools, catalogs, sales manuals: coordination with purchasing & sales departments
- After sales service: coordination with service manager & support to manufacturers
- Technical training (products, installation, maintenance)
- Keep informed on industry news and trends, products, services, competitors, relevant information about existing and emerging technologies and the latest product-line developments

Ensure effective regional commercial relations with suppliers.

Promotion of products within the Master sales team.

Identify competitive positioning of our products versus the competition.

Coordination with Product Managers & Technical Support Department

Keep informed on industry news and trends, products, services, competitors, relevant

information about existing and emerging technologies and the latest product-line developments.

Requirements:

A Mechanical Engineering degree or equivalent experience

Possess a minimum of 5 to 7 years experience in the sales environment

In depth knowledge of products technical applications (HVACR Master's products & competition)

Working knowledge of Microsoft Office products

Bilingualism considered a major asset

Must have a valid driver's license and be willing to travel

Work conditions:

Permanent position

Competitive salary

Training

Group insurance

Additional holidays

Health program (contribution to your gym membership)

Leader in the air conditioning, refrigeration, ventilation and heating sectors for almost 60 years now and 2010 winner as one of Canada's 50 Best Managed Companies, The Master Group is the largest independent distributor in Eastern Canada from the Greater Toronto Area eastward to the Maritimes.

Please submit resume to:

Christopher Fudge, P.Eng. LEED® AP

Regional Sales Director, Commercial, Applied, Heating and Ventilation

The Master Group

P: 613-829-2816

C: 613-761-2173

F: 613-829-3731

@ cfudge@master.ca

25H, Northside Road, Ottawa (Ontario) K2H 8S1

master.ca

We thank all applicants for their interest, however only candidates selected for an interview will be contacted.