

(Social: 17:30, Dinner: 18:30, Program: 20:00)

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

THEME: YEA

IOT (The Internet of Things) PROGRAM:

André Beauchamp, Sales Development Manager, Intel Canada

SPEAKER BIO:

SPEAKER:

André is responsible for Intel sales to the system integrators, embedded and communications customers in eastern Canada. André has been involved in a variety of roles at Intel including global account management, startup activities, and business development roles.

OVERVIEW:

André will discuss the broad topic of IOT and how the internet and increasing numbers of connected devices are changing the way we live and do business.

Internet of Things, Industrial Intelligence of Things, Machine to Machine..... Call it whatever you want, it'll be big, it'll be really big,

Billions of Connected Devices, But what does it really mean to your business?

- Is it plug and play?
- Is it secure? can it be hacked?
- Are there standards out there?
- How do you connect all these things together?

- Who owns the data? What can be done with it? Can I expand my business into new services?

Restaurant International is happy to accommodate ANY dietary needs with one week's notice. Please get in touch with Sandy Taylor. sandy@ashrae.ottawa.on.ca If you are a vegetarian, ask the server for a list of options

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

> Space is limited so please register online at: http://www.ashrae.ottawa.on.ca/

Registration will close 1 week prior to the event, on Tuesday January 12th. Preregistration is required as the venue requires confirmed numbers that the chapter must commit to pay for at this time.

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

e-mail: contact@ashrae.ottawa.on.ca 1

President's Message

Dear members,

Another year has come and gone. They seem to go faster and faster each year. I hope everyone had an enjoyable holiday season with family and friends. I would like to welcome you to an exciting new year with your **Ottawa Valley ASHRAE** chapter.

For those that do not know, this year marks the 63rd Anniversary of our chapter. It's hard to believe that we have been doing this for over 60 years (well not me). Many of you are likely aware that our city has grown over the last six decades by having piles and piles of great people executing **HVAC** and **ASHRAE** principles into many, many iconic and historic buildings. Over these years, the HVAC industry has evolved with more efficient designs, more energy efficient equipment, better building envelops, and a higher focus on sustainable design. So what do we have to look forward to for the next 60 years?

At our January 19th meeting **Andre Beauchamp** will be our guest speaker and will be giving a lecture on **IOT** (Internet of things). Although this topic will likely prove to be quite different than our usual HVAC topic, it will provide a glimpse of what is now becoming a developing trend in all industries.

The theme for our next meeting is YEA, so we hope to see many of our young members in attendance. We hope to continue to enjoy strong turnouts to our meetings. As a reminder, our January meeting will be back at our normal venue at the Restaurant International at Algonquin College. With that said, I highly encourage everyone to use our online reservation system. It really streamlines the sign-in process and speeds up the whole check-in



President Georges Maamari 2015-2016 OVC President BPA

E-mail: gmaamari@bpa.ca

system in general.

Finally, the **ASHRAE Winter Conference & Expo** is coming up (Orlando, Florida – January 23-27). I hope everyone attending has safe travels and a good time. Visit the website at the link below for more details.

Okay, the holiday break is over now we all have to get back to work, I wish you all a fun and successful 2016.

Georges Maamari, P.Eng 2015-2016 OVC President

link: https://www.ashrae.org/membership--conferences/conferences/2016-ashrae-winter-conference

2016 ASHRAE Winter Conference

Jan. 23–27 | Orlando Hilton | Orlando, Fla.

New Technical Program Tracks, Networking, World's Largest HVAC&R Marketplace

Special first time attendee registration fee available! Low, early-bird registration rates end Nov. 2. Register early! Registration to the ASHRAE Winter Conference includes free access to the AHR Expo!

2016 AHR Expo Jan. 25–27 | Orange Co. Conv. Center | Orlando, Fla. Venues are strategically located next to each other for easy access.

ASHRAE

What You Missed

The meeting took place at **Agonquin College**, Woodroffe Avenue in Ottawa, in the teacher's lounge/cafeteria. The meeting was called to order at 6:25 pm, and attendees were seated for dinner.

business Durina the session, President Georges Maamari called the meeting to order. Celine **Baribeau** welcomed the new members for November, and Past-President Steve Moons welcomed the quests for the evening. Past-President Patrick St-Onge spoke about the technical tour that was offered that day at the Bank of Canada Head Office Renewal. About 20 people attended, and they reviewed the operation of the chilled ceiling panels, the heat-recovery chiller and the dynamic buffer zone along the envelope, where return air comes through the glazing, ensuring energy efficient and а verv comfortable space.

Adam Moons reiterated that ASHRAE Bowling was scheduled for the next day, and we had a record turnout, with lots of fun anticipated. Abbey Saunders raffled off two tickets to an Ottawa Senators game, generously donated by Walmar. The tickets were won by Tom Chivkowski from Master Group. Georges Maamari let the assembly know that we are preparing a new hard-copy roster, and to update their on-line profiles or get in touch with him with revised information to ensure the roster's accuracy.

There were two table tops presented. The first was **Schneider Electric**, offering wireless sensors. The second was **Bousquet gas-fired** equipment, represented by **Master** Group.

The theme of the evening was **Research Promotion**, and **RP** Saunders Chair Abbey and President Georges Maamari spoke about last year's successful campaign, and thanked everyone for their support. They presented a number of certificates and coins for donor recognition, including Hydro Ottawa, who is our first local donor to achieve the Partner Level of support for a \$5000 donation. Georges was presented with the Haves Award for Research Promotion Excellence in Region **II**, well deserved for chairing the most successful campaign in the chapter's history.

A buffet dinner was served at 6:45, and the raffle draw for the Senators tickets was held at 7:50. At 7:54 Mark Newman from NRC spoke about NRC's role in emerging technologies, life science and engineering. He spoke about how NRC prefers to work with ESCO's, and the Sussex Rd. project had 9.3M invested and a 869K yearly return yielding expected, was approximately a 10 year payback. NRC has invested 23.3M nation wide for retrofits, and currently sees 2.8M annually in energy savings.

Dave Seymour, VP of the Eastern Region, **Roy Samhaber**, Senior Project Manager, and **Rob Bohnen**, Project Engineer with **Ameresco** were all involved with the project.



Past President Steve Moons 2015-2016 OVC Past President Total HVAC

E-mail: stevem@totalhvac.com

They recognized 46% energy savings on the S-77 project at Sussex Dr. Their method of progress is to determine the load for the space, determine the viability of the system, then consider the existing plant. If they can downsize the plant due to reduced loads or a more efficient system, they do so. They noted that much of the building was lab space, which has a 3-8 times higher equivalent kWh requirement to office space. The S-77 building now uses less energy than a similarly sized There were extensive hospital. upgrades to the fume hoods, including a change to VAV operation. Exhaust heat recovery was utilized via run-around glycol loops to makeup air handling pre-heat coils. Pneumatic controls on existing fan coils were changed out for DDC controls. They utilized steam heat recovery for the base building. The replaced and upgraded the existing RO water system to better serve the labs. There was also a lighting retrofit throughout the building. Further, they installed a highefficiency hot water boiler plant, taking the building off central plant distribution for building steam. The presentation was well received, and several questions ensued, resulting in a good conversation of the topic. Georges Maamari closed the meeting at 9:10pm.

Smith + Andersen

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Capital Communiqué

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ASHRAE OVC Seminar

DATE: Tuesday, March 15, 2016 Half Day Seminar (1pm - 4pm)

LOCATION: Master Group 25 Northside Road, Ottawa

TOPIC: New NBC vs OBC: Interpreting the Changes

PRESENTER: Judy Jeske

COST: MEMBER: 150\$ **NON MEMBER:** 175\$

Key Elements:

Have you ever found yourself with an RFP that says "The one having the more stringent requirements shall apply"

• You counter....but they are completely different...such as where Fire Hose connections go in a Federal Government building versus a private sector building.

• In Ottawa we are constantly faced with these decisions...and sometimes they come back to haunt us.

• Further the Authority Having Jurisdiction (AHJ) is constantly shifting...can anyone still locate the number for HRSDC?

- Do you happen to know who the AHJ is at the Airport?
- What about Part 11 in the OBC...how does the NBC deal with changes?
- What about the need for Energy Models?

• If you would like a little help in understanding the changes in the new National Building Code, how to comply with them and the differences from the OBC.



YEA Leadership

I would like to thank all members who attended the December **YEA** event at **Tailgators**. We had good mix of people which lead to great conversation and some awesome billiards matches.

January's monthly meeting will have a **YEA** theme, so I hope all of our young members make an effort to attend!

Having guest speaker André Beauchamp is a great tie-in to the

YEA theme. I think the millennial generation will find his topics very interesting.

The presentation is geared toward connected devices within our day to day electronic communication and how to approach this evolving segment of the HVAC industry.

I plan to have another YEA specific event in February, I will send an email once details have been confirmed.



Committee Chair Joe Della Valle 2015-2016 YEA Chair Walmar Ventilation

E-mail: joedellavalle@walmar.net

Thank you for your continued support!

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2015-2016 Research Promotion Campaign

The **ASHRAE RP Campaign** raises over \$2.2 million annually from over 6,000 donors. Typically these donors are **ASHRAE** members, industry associations and industry organizations. To officially say thank you to all those who donated to last year's successful RP Campaign the 2014-2015 Donor Recognition Night was held at the November Program meeting. Thanks to everyone for their support of last year's stellar campaign and a special shout to Georges Maamari winner of the prestigious Hayward Murray **Region II Research Promotion Award** for his outstanding efforts as RP chair for the 2014-2015 campaign.

To date we have managed to keep the momentum going from last year's campaign and have raised approximately 25% of our 2015-2016 RP Campaign of \$27,000. Great work everyone, and let's keep this momentum going into the New Year! Remember no donation is too small, and all money raised goes to **ASHRAE Research Canada**.

The **November** program meeting RP raffle tickets for the Feb. 4 Edmonton v. Ottawa game raised a total of \$820 for **ASHRAE Research**, your support is fantastic! A special thanks to **Walmar Ventilation Products** for donating the tickets, and congratulations to **Tom Chiykowski** of **Master Group** winner of the tickets.

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

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



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

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

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

100%

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** Longhill Energy Nortec Humidity _ **Major Donor Antique** Honor Roll **Major Donor Bronze** _ _ SK Sheet Metal Mastron Mechanical Abbey Saunders _ Georges Maamari Airtron Aaron Dobson Total HVAC Rod Potter Walmar Ventilation Dan Redmond Paul Morin Products Robert Kilpatrick 25% Chris Frauley Chris Fudae Adam Graham Steve Moons Adam Moons Mike Swayne 0



Richard Cameron

InAIR Environmental Ltd.

Stéphan Riffault, P.Eng.

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e-mail: randy@walmar.net VENTILATION & FILTRATION PRODUCTS

Govenor

2015 Bowling Social

Ladies and Gentlemen,

Rēgulvar

The annual **Bowling Social** was held on Wednesday, Nov. 18th at the Merivale Bowling Center. Turnout was excellent this year, with 11 teams vying for the trophy. In the end, Airtron pulled out a victory by a slim 11 pin margin, retaking the title. Aaron Dobson of the victorious Airtron team was quoted as saying,

"A good time was had by all."

Thank you all for the participation and support! See you next year!

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



Adam Moons 2015-2016 Membership Committee Cochair Walmar Ventilation

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	chrish@longhill.ca Phone and cell option: 613-226-3856 ext. 24 Fax: 613-226-2715 111-15 Capalla Court, Ottawa, Ontario K2E 7X1 www.longhill.ca
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MASTER CA

Rod Lancefield, P.Eng., LEED*AP rod @htseng.com

HTS Ottawa Toll Free \$68 280,8544

ontario.htseng.com



Membership Update

The Ottawa Valley Chapter would also I hope everyone had a wonderful like to introduce and welcome the following new member:

Mr Rene Paris Mr James Pady Mr Jameson Wood **Mr Matthew Morris** holidays and a happy New Year.

Looking forward to seeing you at the next ASHRAE event!



Committee Chair Celine Baribeau

2015-2016 Membership Committee Co-chair **BPA**

E-mail: cbaribeau@bpa.ca



Mike Swayne, P. Eng. **Director of Building Services**

Phone:613-828-7800 Fax: 613-828-2600 email: mswayne@jp2g.com

Suite 410 Ottawa, Ontario K2H 8S9



ROY SAMHABER, P. ENG. senior project manager

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106 Colonnade Rd N, Ste 200 | Ottawa, ON K2E 7L6



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 Please contact Shayan Mirza to

openings for the March and April meetings.

The featured table-tops for the January 19th meeting are Tracer™ Concierge System by Trane and Johnson Controls.

Committee Chair

Shayan Mirza

2015-2016 Table Top Committee Chair

Total HVAC

E-mail: shayanm@totalhvac.com

secure yours today! Cost for table tops is \$225 and spaces are filling up quickly, so book your table-top today!



Buildings today require smarter and better technology that makes it easier for you to more efficiently manage your buildings. Our technology provides an intuitive, mobile platform that gives you the power and flexibility to manage your buildings more efficiently, reducing cost, and providing a better indoor environment and smaller environmental footprint.

Tracer^{IM} controls provide the technology platform for the next generation of data-driven, technology-enabled services that are helping to create high performance buildings.

Run your building smartly and simply with the **Tracer**[®] **Concierge**[™] **system**, which provides an easy and affordable way to control lighting and HVAC systems. Concierge goes beyond managing individual rooms, by running HVAC and lighting from one interface. The intuitive, local user interface simplifies daily operation and saves time making changes to the system. The result is improved comfort and performance with reduced operating costs. As a bundled system of proven Trane components, Concierge provides the feature-rich functionality of building automation, without added complexity. The ability to fit the system to your specific building needs results in optimized building performance — and can contribute to greater efficiency and energy savings.



Johnson Controls delivers products, services and solutions that increase energy efficiency and lower operating costs in buildings for more than one million customers.

Operating from 500 branch offices in 148 countries, we are a leading provider of equipment, controls and services for heating, ventilating, air-conditioning, refrigeration and security systems. We have been involved in more than 500 renewable energy projects including solar, wind and geothermal technologies. Our solutions have reduced carbon dioxide emissions by 15 million metric tons and generated savings of \$7.5 billion since 2000.

The Johnson Controls Metasys User Interface Allows access to the Johnson Controls building automation system from any smart phone, tablet or computer using just a web browser. The 'UI' simplified access and mobile optimization make users more productive whether at their desk or "on the go", without installing client side software.

The easy to learn interface displays information using concepts that are familiar to users: their spaces and equipment. It clearly displays relationships between spaces, equipment and field devices. Automatically display all equipment serving a space, equipment serving equipment and field devices controlling equipment.

News Update

IAQA Issues Comments on Proposed District of Columbia Mold Certification/Licensure Program

ATLANTA – Use of a licensed mold assessor for all regulated mold remediation projects should be required under a proposed certification and licensure program being proposed by the District of Columbia, says the **Indoor Air Quality Association (IAQA)**.

IAQA has issued public comments on a draft of licensure/certification regulations for mold assessment and remediation being developed by the D.C., District Washington, Department of Environment (DDOE). Through regulation, DDOE prevent fraudulent hopes to operators from offering their services without being certified or licensed, thereby guaranteeing a basic level of competence in the performance of this activity.

IAQA's public comment included the following:

- The District should require the use of a licensed mold assessor for all regulated mold remediation There should be no projects. provision for an ability to waive this requirement. Among the types of remediation projects for which this requirement would be applicable, our members expressed consensus that this would be applicable to tenant occupied and/or not-owner occupied properties. Our members are very concerned about the negative impacts on property owners and residents if potential conflicts of interest are not prevented.
- If there is a relationship between an assessor and remediator working on the same project, that relationship must be disclosed.
- Remediators must be required to stipulate in writing that their customer has the right to utilize a third-party assessment or testing company.
- Licensing should exist for all individuals involved with mold assessment or remediation. In

addition, there was discussion of some criteria for entry level workers to work on a remediation project to gain the necessary experience to become fully licensed professional mold remediators or assessors. **IAQA** members would like to see that possibility explored in this current rulemaking process.

Proposed ASHRAE/ACCA Standard for Energy Audits Open for Public Comment

ATLANTA – While energy audits are vital to ensuring energy efficient buildings, the audit industry has been largely unstructured. Work products that are labeled energy audits vary greatly in scope, rigor and quality.

A proposed standard from **ASHRAE** and the **Air Conditioning Contractors of America** (ACCA) would bring order to the "Wild West" of the energy audit industry.

ASHRAE/ACCA Standard 211P, Standard for Commercial Building Energy Audits, is open for public comment until Jan. 4, 2016. To comment or learn more, visit: www.ashrae.org/publicreviews.

Standard 211P will establish consistent practices for conducting and reporting energy audits for commercial buildings.

"The standard has the potential to make a huge impact on completing energy saving projects in existing *buildings,*" **Jim Kelsey**, chair of the Standard 211P Committee, said. "Currently there is no standard that defines what constitutes an energy audit. Most practitioners in the energy audit industry are trying to do the right thing for their clients by finding projects and quantifying energy and cost savings in energy without audits. However, consistent standard, we have seen the quality and approach to energy auditing vary widely throughout the industry, Without standardization, it's been the Wild West out there anyone who carries a clipboard and a camera can call themselves an energy auditor and their report an energy audit. What we hope to accomplish with this standard is to



Committe Chair Andrew Klassen 2015-2016 OVC CTTC Chair Trane

E-mail: andrew.klassen@trane.com

set appropriate minimum criteria for what approaches are expected, what information should be in an audit, and how that information is communicated to the end client."

The standard will define the procedures required to perform **Energy Audits Levels 1, 2 and 3**; provide a common scope of work for these audit levels for use by building owners and others; establish standardized industry practices ; and establish minimum reporting requirements for the results.

"One new area that I'm excited about in the standard is electronic data exchange for audit results," Kelsey said. "In this version, we've adopted standardized reporting formats that are consistent with new tools to make it easy to transmit results to cities and agencies. This approach has several benefits to the energy world. First, consistent reporting enables energy auditors to streamline their processes. Currently, it is common for different customers to reauire different reporting formats which leads to a lot of customization for each job. Secondly, standard formats allow us to convert audit results to common data formats (such as BuildingSync XML). This makes it easier for cities, for example, to import audit results to a common database, rather than each agency requiring auditors to manually enter their results in the city's platform."

ASHRAE first addressed audits in 2004 with its publication Procedures for Commercial Building Energy Audits (1st Ed), which introduced the concept of **ASHRAE Energy Audit Levels 1, 2 and 3** as a shorthand for designating the depth of an energy audit. That concept is now commonly used in the commercial building sector. In 2011, a second edition, which added guidelines for best practices in energy audits, was published.

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These books have been widely adopted, cited by rating programs and in cities like **New York** and **San Francisco** where local ordinances require energy audits for certain buildings.

"However, the books were written as guides, not in code-enforceable, standard language," Kelsey said. "With the new standard, we will hone the clarity of those audit level definitions and make enforcement clearer, and potentially broaden the adoption of the ASHRAE audit levels."

New Course on Legionella Standard among ASHRAE 2016 Winter Conference Courses

ATLANTA – Guidance on how to reduce the risk of Legionnaires' Disease via a recently published standard will be shared in a new course from **ASHRAE** at its 2016 Winter Conference. The course is one of 20 courses being presented at the Conference and AHR Expo. "We've already seen the real-life application of this standard when sections of it where adopted by the New York City Council following a deadly outbreak there," **Bill Pearson**, course instructor who serves on the Standard 188 committee. "This course is designed to help prevent future outbreaks by showing the industry how to navigate the standard."

The Conference takes place Jan. 23-27, **Orlando Hilton**, while the **ASHRAE** co-sponsored **AHR Expo** takes place Jan. 25-27, next door at the **Orange County Convention Center**. To register for the **ASHRAE Conference**, which includes free access to the Expo, visit: www.ashrae.org/orlando.

ASHRAE Learning Institute (ALI)

is offering 20 high-quality, authoritative Professional Development Seminars and Short Courses. **ALI** courses provide training with real-world experiences for immediate application. Attendees can earn continuing education credits. For more information or to register, visit: www.ashrae.org/orlandocourses.

The new half-day Short Course, ASHRAE Standard 188-2015 Successfully Managing the Risk of Legionellosis, focuses on ANSI/ASHRAE Standard 188-2015, Legionellosis: Risk Management for Building Water Systems, which establishes the legionellosis minimum risk management requirements for the design, construction, installation, commissioning, operation, service maintenance and of centralized building water systems and components. Michael Patton, a member of the Standard 188 committee, also is an instructor of the course.

Attendees will learn how to use and comply with the standard; where Legionella propagates and who is at high risk for legionellosis; how to create a workable Legionella water management plan; and the responsibilities of project engineers and designers.

ASHRAE Learning Institute

Seminars & Courses at ASHRAE's Winter Conference in Orlando, FL

2 WAYS TO REGISTER

Internet: www.ashrae.org/orlandocourses

Phone: Call 1-800-527-4723 (US and Canada) or 404-636-8400 (worldwide)

Full-Day Professional Development Seminars

\$485/\$395 ASHRAE Member -- Earn 6 PDHs/AIA LUs or .6 CEUs

Commercial Building Energy Audits

Saturday, January 23, 2016 - 8:00 a.m. to 3:00 p.m.

Commissioning Process in New & Existing Buildings Saturday, January 23, 2016 – 8:00 a.m. to 3:00 p.m.

Designing HVAC Systems to Control Noise & Vibrations Saturday, January 23, 2016 – 8:00 a.m. to 3:00 p.m. **Energy Modeling Best Practices and Applications** Tuesday, January 26, 2016 – 9:00 a.m. to 4:00 p.m.

Operations & Maintenance of High-Performance Buildings Tuesday, January 26, 2016 – 9:00 a.m. to 4:00 p.m.

Half-Day Short Courses

\$159/\$119 ASHRAE Member -- Earn 3 PDHs/AIA LUs or .3 CEUs

Laboratory Design: The Basics and Beyond Sunday, January 24, 2016 – 3:30 p.m. to 6:30 p.m.

Troubleshooting Humidity Control Problems Sunday, January 24, 2016 – 3:30 p.m. to 6:30 p.m.

Understanding & Designing Dedicated Outdoor Air Systems Sunday, January 24, 2016 – 3:30 p.m. to 6:30 p.m.

Variable Refrigerant Flow System Design & Applications NEW! Sunday, January 24, 2016 – 3:30 p.m. to 6:30 p.m.

Air-to-Air Energy Recovery Applications: Best Practices Monday, January 25, 2016 – 8:30 a.m. to 11:30 a.m.

Applications of Standard 62.1-2013 Monday, January 25, 2016 – 8:30 a.m. to 11:30 a.m.

Building Demand Response & the Coming Smart Grid Monday, January 25, 2016 – 8:30 a.m. to 11:30 a.m.

Energy Management Best Practices Monday, January 25, 2016 – 8:30 a.m. to 11:30 a.m. Advoiding IAQ Problems Monday, January 25, 2016 – 2:45 p.m. to 5:45 p.m.

Commissioning Process & ASHRAE Standard 202 Monday, January 25, 2016 – 2:45 p.m. to 5:45 p.m.

Complying with Standard 90.1-2013: HVAC/Mechanical Monday, January 25, 2016 – 2:45 p.m. to 5:45 p.m.

ASHRAE Standard 188-2015 – Successfully Managing the Risk of Legionellosis NEW! Monday, January 25, 2016 – 2:45 p.m. to 5:45 p.m.

Exceeding Standard 90.1-2013 to Meet LEED Requirements Monday, January 26, 2016 – 9:00 a.m. to 12:00 p.m.

IT Equipment Design Evolution & Data Center Operation Optimization Monday, January 26, 2016 – 9:00 a.m. to 12:00 p.m.

Designing High-Performance Healthcare HVAC Monday, January 26, 2016 – 1:00 p.m. to 4:00 p.m.

ASHRAE HVAC Design Training

2 Courses, 5 Days of Intense Instruction

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HVAC Design: Level I – Essentials - Registration is \$1,264 (\$1,009 ASHRAE Member)

Gain practical skills and knowledge in designing and maintaining HVAC systems that can be put to immediate use. The training provides real-world examples of HVAC systems, including calculations of heating and cooling loads, ventilation and diffuser selection using the newly renovated ASHRAE Headquarters building as a living lab.

HVAC Design: Level II – Applications - Registration is \$854 (\$699 ASHRAE Member)

HVAC Design: Level II — Applications provides instruction on HVAC system design for experienced HVAC designers and those who complete the HVAC Design: Level I – Essentials training. The training provides information that allows practicing engineers and designers an opportunity to expand their exposure to HVAC systems design procedures for a better understanding of system options to save energy.

Visit <u>www.ashrae.org/hvactraining</u> to register.





SAVE THE DATE

Fire Damper Installation & Kitchen Ventilation (NFPA96) Seminar

Presenter:	Eli Howard - Executive Director SMACNA Technical Resources, Chantilly, Virginia
When:	Tuesday, February 9 TH , 2016
Where:	Centurion Center, 170 Colonnade Road South, Ottawa, ON
Time:	8:00 am – 4:00 pm (Lunch provided)

The seminar will be covering SMACNA Standards on the following material:

- **Basics of Fire/Smoke Dampers** •
- Architect/Designer/Code Official Responsibilities Rectangular Welded Grease Duct Fabrication •
- Code Compliance for Fire/Smoke Dampers
- Smoke Removal/Control requirements •
- NFPA 96 Kitchen Ventilation requirements
- Kitchen Grease Duct Filtration Systems ٠

Registration information to follow

Watch the MCA Ottawa website (www.mcaottawa.ca) for registration details or email info@mcaottawa.com for further information or to be added to the distribution list.

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 E-mail: gmaamari@bpa.ca 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.

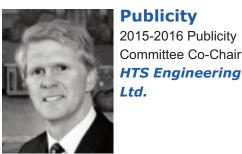
Please note that ads require prepayment made to the treasurer. Please register and pay online or for payment and other information contact Adam Graham at Adam.Graham@hts.com

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.



E-mail: rodl@htseng.com



President Georges Maamari 2015-2016 **OVC President**

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