



## ASHRAE Ottawa Valley Chapter

- DATE:** Tuesday October 15, 2019  
Social: 17:30, Dinner: 18:30, Program: 20:00
- LOCATION:** Centurion Conference & Event Center  
170 Colonnade Rd, Ottawa, ON K2E 7J5
- THEME:** Students
- PROGRAM:** Hydronic System Heat Transfer

**Heat** is constantly being transferred between 'hot' and 'cold', trying to reach an **equilibrium**. Understanding the modes of heat transfer and terminology can help make use of transferring the heat to where is required, either to a **fluid** (boilers and chillers), or to a **space** for **comfort** applications. The relationship between **heat transfer** and **flow** are examined, and common **design** issues are presented. The presentation will review heat transfer **fundamentals**, the relationship between **heat transfer flow rate** and **temperature drop**, **supply temperature**, designing for **high temperature drop**, **Thermal Equilibrium**, **Low supply water temperature**, and **Heat Exchanger Fundamentals**.

**SPEAKER:** Ryan M. MacGillivray, M.Sc., P.Eng.  
Daniels-Wingerak Engineering Ltd.

**Ryan M. MacGillivray, P. Eng.** is the **Secretary-Treasurer**, and a **Principal Engineer** at the mechanical consulting firm **Daniels-Wingerak Engineering Ltd.**, in **Saskatoon**. The firm specializes in **mechanical system design** for **commercial** and **institutional** buildings, including the **Nutrien Wonderhub** (Children's Discovery Museum), the Children's Hospital of Saskatchewan, various other office buildings, nursing homes, and university buildings.

Prior to joining **Daniels-Wingerak Engineering Ltd.** in 2002, Ryan was a **Research Assistant** and **Sessional Lecturer** at the **University of Saskatchewan**, where he received his **B.E** and **M.Sc.** degrees in **Mechanical Engineering** in 1999 and 2005. Through his Master's degree, he was able to experience microgravity, by flying in the **European Space Agency's** version of the 'vomit comet'. He has been registered as a **Professional Engineer** in **Saskatchewan** since 2005, with Permission to Consult since 2011. Ryan is also a licensed to practice in Alberta with **APEGA** and maintains the corporate Permit to Practice as **Responsible Member**.

**Space is limited so please register online at the link below**

Chapter Members: \$48.00	Guests: \$65.00
Student Members: \$35.00	Life or Fellow: \$48.00

<https://ashraeottawa.simplesignup.ca/en/4020/index.php?m=eventsList>

# President's Message

With the 2019-2020 **ASHRAE** season underway I would like to thank everyone for joining us at the **Mill Street Pub**. We had an incredible turnout from our **membership, students** and **guest** to **socialize** and **network** before our program meeting. Thank you to our speaker **Michael Colicchio** for presenting for the evening and thank you to **Ainsworth** for their donation of **Redblacks** tickets to help raise money for the **Research Promotion** campaign. Congratulations to **Todd Legere** who was the lucky winner. The monthly raffles help the **Research Promotion committee** reach their annual target. We appreciate all donations that are made to this cause. We return to our regular venue at the **Centurion Center** for our next program meeting with **ASHRAE** Distinguish Lecturer **Ryan MacGillivray** as he discusses **Hydronic System Heat Transfer**.

Our theme for **October** is **Students**. **Students** are the future of our

industry and our student activities committee, led by **Elizabeth Primeau**, is continuously working to facilitate exposure with local **K-12** schools, **colleges** and **universities**. Our program meetings give students an opportunity to meet future employers, socialize with peers, and learn about **HVAC** related topics and our industry. I encourage our membership to welcome the students and engage in conversation throughout the evening. As we do not charge students for attending our meetings, I would like to encourage our members to **sponsor** the student's attendance. All members or guest who sponsor a student will be **recognized** in the next communique.

As mentioned in my last message, it is our **volunteers** that make our chapter successful. We are always looking for volunteers to help Chapter Chairs or assist with Chapter involvement such as **student design competitions, regional science**



**President**  
**Aaron Dobson**  
2019-2020  
OVC President  
**Ainsworth**

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**fair, career fair, Government outreach days, K-12 STEM events** etc.

To learn more about our **October** program please go to our website at [www.ashrae.ottawa.on.ca](http://www.ashrae.ottawa.on.ca) and click on the October meeting link for more information and to register. Links are also posted for other events in **October** including the **ASHRAE Stroke Play Golf Tournament, Full-day seminar on Fundamentals of Air System Design, our first YEA (Young Engineers in ASHRAE) event of the year as well as our first event for WiA (Woman in ASHRAE)**. Thank you and I look forward to seeing you soon!

## ASHRAE Table Top Displays

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 currently have openings at the October and November meetings. Book your display today before they

are all sold out!

Please contact **David Michelin** ([david.michelin@hts.com](mailto:david.michelin@hts.com)) to secure yours today!

Cost for a table-top is **\$225**.

*Payment is to be made through the online system prior to the date reserved. Follow the link below:*

<https://ashraeottawa.simplesignup.ca/en/3654/index.php?m=eventSummary>



**Table Tops**  
**David Michelin**  
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# What You Missed

The first program meeting of the 2019/2020 **ASHRAE** season was held at the **Mill Street Brew Pub** located at **LeBreton Flats** along the **Ottawa River**. The theme for the evening was **Membership Promotion**. The meeting was attended by **eighty-six** guests, which consisted of **sixty-one** members, **twenty** guests and **five** students. The program for the evening was **BACnet for Engineers**, presented by **Michael Colicchio**.

President **Aaron Dobson** called the meeting to order, and provided a recap of **summer** events and news. **Darryl Boyce** from the **Ottawa Chapter** became **Society President** at the **Kansas City Meeting** in **June**. At the regional level, Student Activities Chair **Elizabeth Primeau** was recognized as having the **Best Student Branch** of the year. Past President **Daniel Redmond** was awarded the **William J Collins Jr Research Promotion award** for excelling in **Research Promotion**. This is the second year in a row that the **Ottawa Chapter** has won this **Society level** award, with **Adam Graham** being the previous recipient. The award recognizes the top research promotion contributor on a society level. **Daniel Redmond** is also continuing on at the regional level, representing us as a **Region Vice Chair** for **CTTC**.

President **Aaron Dobson** thanked all of the local volunteers for their

contributions and introduced the **Executive, Board of Governors** and **Chapter Chairs** and **Volunteers**. Secretary **Ryan Dickinson** introduced the guests for the evening.

**Andrew Brown**, the membership promotion chair, talked about how you can do more for **ASHRAE**, including participating in **technical committees** and **continued education** through the **ASHRAE Learning Portal**. If anyone is looking to help out with committees, there are plenty of opportunities for networking and personal growth. **Andrew** also reminded members to update their biographies on the society website. If an **associate member** has 12 years of combined education and work experience, they are eligible for **full membership**. **Andrew** introduced **six** new members that joined our **Chapter** over the summer.

President **Aaron Dobson** thanked the chapter for the resounding success of last year's **Research Promotion campaign** in raising almost **\$38,000** for research. In the last **5** years, the **Ottawa Chapter** has raised roughly **\$250,000**.

**Adam Moons**, President-Elect and Research Promotion Chair, thanked everyone for their incredible generosity over the past few years. All of the money donated comes back into Canadian Research projects.



**Secretary**  
**Ryan Dickinson**  
2019-2020  
OVC Secretary  
**V&R Engineering**

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Currently, we have **83** funded projects, **100** member-led technical committees, and in excess of **27 million dollars**-worth of current implications from research promotion, not including scholarships, bursaries, funds or endowments.

President **Aaron Dobson** briefly talked about upcoming **YEA** events that will be posted to the website shortly.

**CTTC** Chair **Trevor Thomson** spoke about the upcoming full day seminar on **Fundamentals of Air Systems Design**. There are seats remaining, and registration includes breakfast, lunch, and the **ASHRAE Fundamentals of Air System Design handbook**. The **Stroke Play Golf Tournament** is also coming up in a few weeks, and will be held at **Emerald Links** on **Friday October 11th**.

There was one table top for the evening. **Martin Fransham** from **Schneider Electric** talked about his table top, including energy savings initiatives and integrated buildings.

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**Dinner** was family style service, including choice of Kale Caesar Salad and Strawberry Spinach Salad for starter. Choices of southern fried chicken, salmon, sautéed green beans, mashed potatoes, and hand cut fries for the main, with apple crumble served for dessert.

President **Aaron Dobson** announced that the Chapter is now on **social media**. The Chapter **Twitter** page can be found @ASHRAEOttawa, and the **LinkedIn** page name is **ASHRAE-OVC**.

Raffle tickets were sold to win four Club level **Redblacks** tickets donated by **Ainsworth**. A total of \$920 was raised for **ASHRAE** research. **Todd Legere** was the lucky winner of the **Redblacks** tickets.

President **Aaron Dobson** announced the program topic for the evening, **BACnet for Engineers**, and introduced the speaker, **Michael Colicchio** from **Montreal**. **Michael** works for **Schneider Electric** as a **Building Automation Solutions Specialist**.

**Michael** started off by providing an introductory overview of **BACnet**. **BACnet**, which stands for **Building Automation and Control Network**, started off as **ASHRAE 135** in 1995. **BACnet** defined protocol, objects, services, transports, device profiles, and PICs (Protocol Implementation Conformance statement). A **protocol** is a set of rules devices follow when communicating with each other. A protocol defines **IDs** (device identifiers), **message types** (read, write, etc.), the **transport** (physical media), and **packets** (communication message). **BACnet** includes a standard set of objects, such as **Binary**

**Input, Analog Input**, etc. In 1995, there were only 23 object types, but that number has increased to 60 today.

**BACnet Services** are the method that the devices use to communicate, and are based on a **client-server** model. The client initiates the service (such as read outdoor air temperature from device), and the server receives and executes the service. **BACnet** devices can either be a **client** or a **server**. Discovery service builds a database of all of the BACnet devices on the network by polling all of the devices and receiving a response with all of the objects the devices have. In complex buildings, there may be hundreds of devices, and that can create a lot of traffic on the network. Change of Value (COV) is critical for managing the traffic on the network to prevent hundreds of devices on the network from polling all the devices at the same time. Devices now subscribe to the object that they want to get an update from, and will only update if that value changes above or below a threshold. For outdoor air temperature, it might be half or one degree. If the value doesn't change, then there's no traffic.

**BACnet** transport defines the **physical media**, packet formation and media access. **BACnet MSTP** and **BACnet IP** are the two most common transports. **BACnet MSTP** stands for **Master/Slave Token Passing**, and uses low cost **RS-485** twisted pair. **BACnet IP** communicates over standard **Ethernet IP** networks. Today, limitations are starting to arise with **BACnet MSTP** as **analytics** and a larger number of **nodes** on the network can begin to impact **latency**. **BACnet IP** solves this by providing higher **bandwidth**. Other transports in-

clude **BACnet Ethernet**, **BACnet Arcnet**, **BACnet LonTalk**, **BACnet PTP**, and **BACnet Zigbee**.

**BACnet IP System Topology** includes **Daisy Chain**, **Star**, and **Daisy Chain Loop**. **Daisy Chain** is the most cost effective; however, if there's a break in between the switch and one of the controllers, then all of the other controllers are lost. **Star** has higher **performance** and **reliability** but at a greater **cost**, since each controller has to be connected back to the **switch**. This is beneficial in critical applications such as **data servers** and **hospitals**, where extremely high **reliability** is required. If one controller goes down, the others are not affected. **RSTP** (Rapid Spanning Tree Protocol), or **Daisy Chain Loop**, is a mix of **Star** and **Daisy Chain**. It includes a **managed switch** capable of diverting data from one port to the other, and the last controller is connected back to the switch so if there's a break in the chain, the managed switch automatically diverts the data up the other end.

**BACnet Device Profiles** came out around 2004 and include:

- **B-SS (Smart Sensor)** and **B-SA (Smart Actuator)**: the most basic type of device.
- **B-ASC (Application Specific Controller)**: thermostat, fan coil or heat pump controller with read/write property. No support for COV, alarms or notifications.
- **B-AAC (Advanced Application Controller)**: plant or chiller controller with read/write property multiple, alarms, event notifications, time synchronization.
- **B-BC (Building Controller)**: building automation system or enterprise level server.
- **B-OWS (Operator Workstation)**



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- **B-AWS (Advanced Workstation)**

**Protocol Implementation Conformance statement (PICs)** is a 3-4 page statement from the manufacturer that describes what the BACnet device can handle. PICs include the Device Profile, objects supported, services supported, and transport supported, so that the technician knows how to wire the device and what exactly it supports. Manufacturers are also able to have their devices **BTL** certified through the **BACnet Testing Laboratories**. BACnet Test Labs is run by **BACnet International**, a group of manufacturers that are working together to advance the BACnet protocol.

**BACnet** started in 1987 as **ASHRAE 135**, but was not officially released until 1995. The initial release had limited adoption. Even though it was open, it had a lot of **interoperability** issues and they didn't have **Device Profiles**

at the time. Around 2000, several manufacturers came together to create the **BACnet Manufacturers Association**, or **BMA**, which later became **BACnet International**. In 2004, **BACnet IP** and **Device Profiles** were introduced. Since 2004, the standard has continued to evolve. **BACnet** is not an encrypted protocol, but a new standard called BACnet SC aims to address that by supporting **Authentication** and **Encryption** over **IP**. BACnet SC is still out for public review.

**Conformance** to the BACnet standard ensures a known level of **interoperability**. Key successes for interoperability with BACnet include using **BTL listed** devices. **BACnet** interoperability through a gateway is less than ideal, but if there is an existing proprietary **BAS**, a gateway allows you to share some of the proprietary information converted to BACnet. When integrating **lighting** controls, **access** controls, and **elevator** controls, BACnet may not be the best option.

**Michael** concluded his presentation with some **specification** items to consider. **BTL** listing ensures conformance to the standard. When specifying Device Profiles, it's important to consider what **features** matter so that you're not over-specifying devices. When choosing between BACnet IP and BACnet MSTP, consider the future **data needs** of the building.

President **Aaron Dobson** thanked **Michael Colicchio** and reminded attendees of the survey which will be emailed. The next meeting is scheduled for **October 15th** at the **Centurion Conference and Event Center**.

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## Membership Update

Greetings Everyone,

I hope the rest of your **September** went just as planned. A lot of people have been having issues receiving our local chapter **communiqués**. The most common reason for this is not having registered an account through the **ASHRAE Ottawa** website. If you pay your society and chapter dues on the ASHRAE.org site you may be running into this issue. Correcting this is simple so please give me a **call** or send me an **email** and I will give you a hand.

On another note please sign into your **ASHRAE** accounts at your

earliest convenience and make sure the information is up to date.

I'm starting to see some membership lapse so make sure you're up to date. There is a one month grace period so don't leave it too long. See you in **October**.

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

**Chris Hopper**  
**Dana Farcasiu**  
**Victor Deveau**  
**Graham Timperon**



### Membership Promotion

**Andrew Brown**

2019-2020

OVC Membership Committee

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# News Update

## ASHRAE Announces Call for Abstracts for 2020 Building Performance Conference and SimBuild

**ATLANTA** (Aug. 12, 2019) – **ASHRAE** has announced a call for abstracts for the 2020 **Building Performance Analysis Conference** and **SimBuild**, to be held Aug. 12-14, 2020, at the **Westin River North** in **Chicago**.

Co-organized by **ASHRAE** and **IBPSA-USA**, the theme of the conference, "**Integrated Building Design and Analysis to Achieve Zero Carbon**," focuses on improving the decision making process through the application of **simulation** and **modeling** over the entire building life cycle.

"This conference brings together the building **energy analysis** and **performance simulation** community for **three** days of discussions, seminars and short courses to address the practices of energy modeling and building performance simulation using existing simulation tools, software development and future simulation research and applications." said **Carrie Brown**, conference chair.

The conference steering committee is seeking abstracts on topics involving the use of innovative approaches for integration of modeling tools for better building **design**,

**performance** and **operation** to meet aggressive targets for **compliance, energy reduction, decarbonization, and resiliency.**

Suggested paper topics include:

- Early Design Modeling and Analysis
- Component and Systems Modeling and Load Analysis
- Codes, Standards, and Compliance Modeling
- Modeling Carbon
- Lighting and Daylighting
- Occupant Behavior, Comfort / Health, Wellbeing
- Urban Scale Modeling
- Data Exchange and Interoperability
- Big Data Applications for Large Scale Simulations
- Modeling Advances (New techniques, automation, scripting, etc.)
- Grid-interactive Efficient Buildings and Resiliency
- Education
- Intelligent Building Operations

## ASHRAE Announces 2019-20 Society Scholarship Recipients

**ATLANTA** (Aug. 29, 2019) – **ASHRAE** has announced the recipients of **33 Society scholarships**, totaling \$166,000, for the 2019-2020 academic year.

"We are proud of the hard work and incredible determination of our



**Governor Jacob Hough**  
2019-2020 OVC Governor  
**Total HVAC**

E-mail: [jacobh@totalhvac.com](mailto:jacobh@totalhvac.com)

2019-20 scholarship recipients as they strive to achieve their academic goals," said **Samir Traboulsi**, chair of the **ASHRAE** scholarship trustees. "One of the objectives of the **ASHRAE Scholarship Program** is to inspire the next generation of engineering professionals to work towards solving some of the world's greatest **HVAC&R** challenges. We are pleased that this program is making such an impactful contribution to the future success of our industry."

The following awards provide a \$10,000 scholarship:

**Willis H. Carrier Scholarships**  
**Phillip Preuss**, mechanical engineering, **Clemson University** and **Nathan German**, architectural engineering, **University of Nebraska** Lincoln at Omaha, are the recipients of a Willis H. Carrier Scholarship established by the Carrier Corp. in memory of its founder, who installed the world's first scientifically designed air-conditioning system.

**Reuben Trane Scholarships**  
**Isaac Golumbia**, mechanical engineering, **University of Victoria**; **Megan Bush**, architectural engineering, **North**

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**Carolina A&T State University** and **Ethan Engle**, architectural engineering, **Kansas State University** are the recipients of a Reuben Trane Scholarship which is to be awarded over two years and was established by the Trane Co. in memory of its founder, an innovative engineer, inventor and business executive, who held 28 patents.

The following awards provide one-year \$5,000 scholarships:

**Frank M. Coda Scholarship**  
**Mikaela Myrin**, mechanical engineering, **University of Texas at San Antonio**, is the recipient of the Frank M. Coda Scholarship created in memory of ASHRAE's former executive vice president, who served from 1981-2004.

**Gordon V.R. Holness Engineering Scholarship**  
**Erica Acton**, architectural engineering, **Illinois Institute of Technology**, is the recipient of the Gordon V.R. Holness Engineering Scholarship named in honor of ASHRAE Presidential Member Gordon V.R. Holness, P.E., Fellow ASHRAE, Life Member, who served as the Society's president in 2009-10.

**Gordon V.R. Holness Engineering Technology Scholarship**  
**Thomas Guilfoil**, mechanical engineering technology, **State University of New York College of Technology**, is the recipient of the Gordon V.R. Holness Engineering Technology Scholarship.

**Lynn G. Bellenger Engineering Scholarship**  
**Sydney Bellows**, architectural engineering, **Kansas State University**, is the recipient of the Lynn G. Bellenger Engineering Scholarship which recognizes female undergraduate engineering students and is named in memory of the Society's first female president, who served as the Society's president in 2010-11.

**Lynn G. Bellenger Engineering Technology Scholarship**  
**Samantha Daniels**, architectural engineering technology, **Vermont Technical College**, is the recipient of the Lynn G. Bellenger Engineering Technology Scholarship which recognizes female undergraduate engineering technology students.

**Alwin B. Newton Scholarship**  
**Cheuk Fung Lam**, building services engineering, **Technological and Higher Education Institute of Hong Kong**, is the recipient of the Alwin B. Newton Scholarship named for an industry pioneer and ASHRAE Fellow who was granted 219 patents.

**David C.J. Peters Scholarship**  
**Rachel Coyle**, architectural engineering, **Pennsylvania State University**, is the recipient of the David C. J. Peters Scholarship created by Southland Industries to honor Peters, an advocate of recruiting quality.

**Duane Hanson Scholarship**  
**Alexander Rodrigues**, architectural engineering, **University of Cincinnati**, is the recipient of the Duane Hanson Scholarship established by Gayner Engineers and is named for the company's former president.

**Legacy Scholarship:**  
**Esteban Garcia Ponte**, mechanical engineering, **Clemson University**, is the recipient of the Legacy Scholarship.

**ASHRAE Region IV Benny Bootle Scholarship**  
**Lauren Johnson**, industrial and systems engineering, **Georgia Institute of Technology**, is the recipient of the ASHRAE Region IV Benny Bootle Scholarship named for a former Region IV chair and regional director on the ASHRAE Board of Directors.

**James R. Bullock Jr. Scholarship**  
**Josh Blalock**, engineering – mechanical option, **East Carolina University**, is the recipient of the James R. Bullock, Jr. Scholarship named in memory of the late Bullock Jr., P.E., Life Member of ASHRAE, who served as president of Environmental Air Systems Inc.

**General Scholarship**  
**Jon Henry Cowart**, electrical engineering, **Pennsylvania State University**, is the recipient of the General Scholarship.

**Engineering Technology Scholarships**  
**Landon Fisher**, air-conditioning and refrigeration technology, **Oklahoma State University Institute of Technology**; **Andrew Scott**, architectural engineering technology,

**Vermont Technical College** and **Nicholas Schramski**, HVAC engineering technology, **Ferris State University**, are the recipients of an Engineering Technology Scholarship.

**Freshman Engineering Scholarship**  
**Owen Lutz**, architectural engineering, **Kansas State University**, is the recipient of the Freshman Engineering Scholarship.

The following awards provide one-year \$3,000 scholarships:

**Henry Adams Scholarship**  
**Charleson Asibor**, architectural engineering, **University of Lagos**, is the recipient of the Henry Adams Scholarship established by Henry Adams, Inc. in memory of its founder, a charter member and sixth president of ASHRAE'S predecessor society, ASHVE, established in 1899.

**ASHRAE Region I Setty Family Foundation Scholarship**  
**Jake Pforr**, facilities engineering, **Massachusetts Maritime Academy**, is the recipient of the ASHRAE Region I Setty Family Foundation Scholarship named in honor of Boggarm Setty, Fellow ASHRAE, Life Member.

**ASHRAE Region III Setty Family Foundation Scholarship**  
**Maggie Smith**, architectural engineering, **Pennsylvania State University**, is the recipient of the ASHRAE Region III Setty Family Foundation Scholarship.

**ASHRAE Minnesota Chapter Peter Potvin Scholarship**  
**Andrew Kivi**, mechanical engineering, **University of Minnesota**, is the recipient of the ASHRAE Minnesota Chapter Peter Potvin Scholarship named in memory of a former president of the Minnesota Chapter.

**ASHRAE New Jersey Chapter Scholarship**  
**Veronica DeStefano**, mechanical engineering, **Rensselaer Polytechnic Institute**, is the recipient of the ASHRAE New Jersey Chapter Scholarship.

**ASHRAE Central New York**

**Chapter Scholarship** **King-Traugott Garrett Fields**, mechanical engineering technology, **State University of New York at Canton**, is the recipient of the ASHRAE Central New York Chapter King-Traugott Scholarship named in memory of ASHRAE Life Members Fritz Traugott, Ph.D., Fellow ASHRAE, and Harry King.

**ASHRAE Ottawa Valley Chapter Scholarship** **Matthew Woods**, sustainable and

renewable energy engineering, **Carleton University**, is the recipient of the ASHRAE Ottawa Valley Chapter Scholarship.

**Donald E. Nichols Scholarship** **Austin Estes**, mechanical engineering, **Tennessee Technological University**, is the recipient of the Donald Nichols Scholarship named for a former ASHRAE vice president and graduate of Tennessee Technological University.

**High School Senior Scholarships** **Peter Bennett**, HVAC technology, **Pennsylvania College of Technology**; **Joshua Adair**, architectural engineering, **Lawrence Technological University**; **Isabella Gayoso**, mechanical engineering, **Pennsylvania State University**; and **Gregory Melone**, mechanical engineering, **Clarkson University**, are the recipients of a High School Senior Scholarship.

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## ASHRAE Golf Stroke Play

Ladies and Gentlemen,

We are proud to continue the **ASHRAE Stroke Play Golf Championship** again this year. I, **Joe Della Valle**, will be coordinating the event this year with **Trevor Thomson**. All are welcome to this tournament, regardless of skill level. The goal is simply to continue the positive social atmosphere that our **ASHRAE Chapter** provides.

Event Details:

**Date : Friday, October 1th, 2019**

**Location: Emerald Links Golf Course**

**Address: 6357 Emerald Links Dr, Greely, ON K4P 1M4**

**Event Cost: ASHRAE Members - \$55.00 Taxes Included (Green**

**Fee and Power Cart) Non-Members - \$60.00 Taxes Included (Green Fee and Power Cart)**

Stroke Play Format, RCGA **Rules**:

- There will be no flights or handicaps applied, and the lowest score on the day will win.
- There will be no Mulligans, do-overs, foot-wedges or gimmies, and a handout outlining some of the rules to remember will be provided.

As this is a purely social event, there will be no auctions, prizes or sponsorship, just an enjoyable, competitive round of golf. **Registration** will start at **9:45am**; **Shotgun Start** will be at **11:00am SHARP** so please be ready to head to your assigned hole by **10:45am**. We will assign the participants into **foursomes**. Space is limited to 44 golfers, **first come, first served**.



**President**  
**Joe Della Valle**  
2019-2020  
OVC Governor  
**Walmar**

E-mail: [joedellavalle@walmar.net](mailto:joedellavalle@walmar.net)

There is no formal meal afterwards, but typically the scores are added, and **trophy** awarded in the club house after the round and some snacks provided.

Please register on-line through the Simple Signup website, link below. Participants will be contacted before the tournament to be given any last-minute details. If you have any questions, or need more information, please contact **Joe** or **Trevor**.

<https://ashraeottawa.simplesignup.ca/en/5080/index.php?m=eventSummary>

# Women in ASHRAE

**Location: Clocktower Brew Pub Westboro, 418 Richmond Rd, Ottawa**

**Date: Thursday October 24, 2019**

**Time: 5:30pm-9:30pm**

**Includes: Amazing appetizers, networking opportunities and meeting other inspiring Women in ASHRAE and in our industry!**

**Cost: FREE**

This is a great way to meet other women in our industry! This is our very first year for **Women in ASHRAE (WiA)** activities in the **Ottawa Valley Chapter**. Please RSVP at the link below so we know how many people to expect.

Individuals will be responsible for paying for drinks and additional food. The focus of the Women in Engineering group within **ASHRAE** is to facilitate the retention of women

working in the built environment by encouraging opportunities for **professional development, expanding leadership skills, and creating a network of women supporting women.**

Please consider sending a female colleague or client. **Architects, engineers, building owners, sales, and manufacturing**, anyone from the **construction industry** is welcome.

Everyone is welcome, but we ask that everyone is respectful of our intent for this event to support and build our community of women in our industry.

For more information regarding WiA or for future event sponsorships please do not hesitate to contact Adrienne or Celine:

**Adrienne** **Mitani:**  
Adrienne.Mitani@smithandandersen.com



**Governor Celine Baribeau**  
2019-2020  
OVC Governor  
**BPA**

**E-mail:** [cbaribeau@bpa.ca](mailto:cbaribeau@bpa.ca)

**Celine Baribeau:** [cbaribeau@bpa.ca](mailto:cbaribeau@bpa.ca)  
Thank you and looking forward to our first event!

**LINK** below.

<https://ashraeottawa.simplesignup.ca/en/5149/index.php?m=eventSummary>

## Student Activities

Hello again **students!**

I am very happy to announce that we have a student team competing in this year's **ASHRAE Student Design Competition**. We have 5 students, from **Algonquin College, Carleton University** and the **University of Ottawa**, working together on the **Design Calculations** category. Wish them luck! If anyone would like to volunteer as mentor, please contact me (we can never have too many helping hands).

The **Carleton University Branch** will be hosting **Ryan MacGillivray** on **October 15th** before his talk at the

chapter meeting.

Please join us at **Mackenzie Building, Room 3190**, from **2:30 to 4:00**. **Ryan** will provide an overview of **HVAC engineering**. No registration is required, and this event is open to all students from any school.

This month's chapter meeting is student-themed! I encourage all students to attend and meet your fellow students and the members of **ASHRAE**. I hope we can all welcome the students and get to know the future members of our chapter. The **OVC** is happy to cover travel costs for students to get to the chapter



**Student Activities Elizabeth Primeau**  
2019-2020  
OVC Student Activities  
**TOTAL HVAC**

**E-mail:** [elizabethp@totalhvac.com](mailto:elizabethp@totalhvac.com)

meetings, email me for more information.

For more information about any student activities, any questions or ideas, please contact me.

# ASHRAE Seminar

**DATE:** Wednesday October 16, 2019  
**LOCATION:** Master Group  
25 Northside Rd, Nepean, ON K2H 8S1  
**TOPIC:** FUNDAMENTALS OF AIR SYSTEM DESIGN

**Program  
Chair**  
**Zarna Kakadiya**  
2019-2020  
OVC Program Chair  
**Master Group**

**E-mail:** [zkakadiya@master.ca](mailto:zkakadiya@master.ca)

## SUMMARY:

Welcome to **Ottawa Valley Chapter** season 2019-2020. This year we are coming up with an amazing seminar topic and speaker **Ryan MacGillivray** from **Saskatoon**. To focus on individual goal, it is very vital to gain comprehensive knowledge of **HVAC** that reflect on business directly or indirectly. This is a great opportunity to develop an understanding of the fundamentals of **air system design**.

This **seminar** will help develop an understanding of the basics of **air movement**; the components of **air distribution systems**; considerations of **human comfort**; **load** and **occupancy demand**; **duct system design**; **sound** and **vibration**; and how **codes** and **standards** affect the **design** of **air systems**. After completing the course, you should know:

- The functions of the components of an air distribution system, including major equipment types and auxiliary components.
- The principles of air distribution as they relate to human comfort.
- The principal codes and standards affecting air system design.
- How to layout and size a simple duct system and calculate pressure losses in the system.
- Common methods for reducing airborne sounds in systems and
- How to start an air system and diagnose common problems associated with air system start-up.

**SPEAKER:** **Ryan M. MacGillivray, M.Sc., P.Eng.**

## SPEAKER BIO:

**Ryan MacGillivray** is the **Secretary-Treasurer**, and a **Principal Engineer** at the mechanical consulting firm **Daniels-Wingerak Engineering Ltd.**, in **Saskatoon**. The firm specializes in mechanical system design for commercial and institutional buildings, including the **Children's Hospital of Saskatchewan**, office buildings, nursing homes, and university buildings. Systems include building heating, ventilation and air conditioning (HVAC), controls, fire protection, plumbing and medical gas. Prior to joining **Daniels-Wingerak Engineering** in 2002, **Ryan** was a **Research Assistant** and **Sessional Lecturer** at the **University of Saskatchewan**, where he received his **B.E** and **M.Sc.** degrees in **Mechanical Engineering** in 1999 and 2005. He has been registered as a **Professional Engineer** in **Saskatchewan** since 2005, with **Permission to Consult** since 2011. **Ryan** is also licensed to practice in **Alberta** with **APEGA** and maintains the corporate **Permit to Practice** as **Responsible Member**. **Ryan** has been active with the **ASHRAE Saskatoon Board of Governors** since 2003, including **president** in 2008-09. He is currently serving as the **Saskatoon Chapter Membership Promotion Chair**. In addition, **Ryan** was on the **Region XI** regional executive as **Regional Vice-Chair (Research Promotion)**, and helped organize the **2016 Chapter's Regional Conference** as **General Chair**. **Ryan** is also currently the chair of the **APEGS** Professional Practice Exam Committee (which oversees the Law and Ethics Seminar), and serves on the **Governance Board**, and the **Registrar's Advisory Committee**. **Ryan** and his wife, **Margaret**, have three school-aged children, and they all enjoy **golf** and **camping**.

## YEA

Hey OVC!

Our first YEA event of the year has been scheduled and we will be going to an Ottawa 67s vs Kitchener Rangers hockey game on October 25th. This event is sponsored by Total HVAC to allow us to offer discounted event prices for our members!

Details of the event and registration are available on the website. Sign up early before it sells out! All tickets come with a voucher for a free drink (beer or pop).

Thank you for your support, looking forward to seeing you out some of the events!



**Governor**  
**Jordan Hansen**  
2019-2020  
OVC YEA  
**Goodkey  
Weedmark &  
Associates**

**E-mail:** [jhansen@gwal.com](mailto:jhansen@gwal.com)

# Advertising

Advertising career opportunities on the **ASHRAE Ottawa Valley Website** makes good business sense. We offer a unique way to reach technical professionals and make your ad dollars work hard for you.

To discuss your needs, contact one of our chapter officers, via our "This Year" page. Increase the impact of your advertising through the **ASHRAE Ottawa Valley Website** today.

Rates for **career opportunities** ads are as follows:

## Chapter Member:

\$50/month  
\$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 **Adam Moons** ([amoons@master.ca](mailto:amoons@master.ca)) with any questions. Follow the link below for payment.

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.

Link: <https://ashraeottawa.simplesignup.ca/en/2590/index.php?m=eventSummary>

Link: <https://ashraeottawa.simplesignup.ca/en/2593/index.php?m=eventSummary>

# Business Card Ads

You can support your chapter and promote your business by placing your business card in the Capital Communiqué. It will also appear on the chapter website.

The cost is \$250.00 for the year. Please contact **Rod Lancefield** at [rod.lancefield@hts.com](mailto:rod.lancefield@hts.com) for more details.

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

<https://ashraeottawa.simplesignup.ca/en/2591/index.php?m=eventSummary>

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

## Publicity 2019-2020 Publicity Committee Co-Chair

HTS Engineering Ltd.  
E-mail: [rod.lancefield@hts.com](mailto:rod.lancefield@hts.com)



**Treasurer**  
**Adrienne Mitani**  
2019-2020  
OVC Treasurer  
**Smith+Andersen**

**E-mail:** [adrienne.mitani@smithandandersen.com](mailto:adrienne.mitani@smithandandersen.com)



**Publicity**  
**Rod Lancefield**  
2019-2020 Publicity  
Committee Co-Chair  
**HTS Engineering  
Ltd.**

**E-mail:** [rod.lancefield@hts.com](mailto:rod.lancefield@hts.com)

## 2019-2020

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Zarna Kakadiya

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Ryan Dickinson