# Communication Commer Edition Capital



# ASHRAE Ottawa Valley Chapter

# President's Message

Welcome to the 2018-2019 Ottawa Valley Chapter **ASHRAE season**. I would like to begin by thanking all of the volunteers that contributed to the Board of Governors (BOG), Executive and all of the committees for their tireless efforts, tremendous hard work, dedication and spirit that made the 2017-2018 year such a success. A special thank you needs to go to **Adam Graham** for his leadership and dedication to the chapter as the chapter **President** for 2017-2018. Thank you very much Adam!



**President** Daniel Redmond 2018-2019 **OVC President** Carleton University

E-mail: daniel.redmond@carleton.ca

The 2018-2019 ASHRAE year ahead of us is expected to be a busy but exciting year. All of the regular activities will continue including the monthly program meetings, seminars, student activities, YEA events and technical tours. We have a very strong team of volunteers working to ensure the coming year is a success but we are always looking for more people to get involved. Volunteering with ASHRAE is an incredible way to give back to our community, build technical skills and to develop strong networking skills. Please don't hesitate to contact myself, or any member of the Executive or the BOG to get involved.

We have been working hard to put together a list of program topics that are expected to be of high interest and value to the membership. As per previous years, we are also expecting to have a social meeting in September and more details will be provided soon. The remainder of the program meetings are expected to continue to take place at the **Centurion Centre**.

Our team of volunteers includes many returning members of the Executive, BOG and committee chairs. New positions include **Adam Moons** and **Adrianne Mitani** who are joining the Executive and Celine Baribeau, Peter Shaw-Wood and Joe Della Valle who have joined the BOG. New committee chairs include Evans Mutua, Andrew Brown, James Pady, Elizabeth Primeau and Jordan Hansen. Congratulations on your new roles!

I would like to take this opportunity to thank Chris Fudge for his years of hard work and dedication to the chapter. Chris worked tirelessly for many years at the chapter and regional levels and was a key contributor to the success of our chapter. Thank you very much Chris for all that you have done!

I would also like to take this opportunity to recognize **Adam Graham** as he was presented with a **Society level award** in Houston Texas at this year's annual meeting. Adam is the recipient of the William J. Collins, Jr. RP Award. This award, named in honour of Presidential Member Collins, recognizes a chapter RP chair who excels in raising funds for ASHRAE's RP campaign. Adam's efforts for the 2016-2017 RP campaign were instrumental in making that campaign a success and we were all very proud to see him recognized in Houston. **Congratulations Adam!** 

The annual **Chapter Regional Conference (CRC)** will take place in **Windsor Ontario** from August 24th through August 26th. We will have several members of the chapter in attendance and the conference will undoubtedly be fun and productive.

Once again, the volunteers on the Board, Executive and committees continue to work hard to prepare for the year ahead. Please let us know if you are interested in volunteering and I hope that everyone has a safe, fun and enjoyable summer. I look forward to seeing you soon!

Daniel Redmond 2018-2019 OVC President

# **ASHRAE OVC Annual Golf Tournament 2018**

Our annual **ASHRAE OVC Golf Tournament** was held at **The Marshes Golf Club** on Monday June 4th. A big thank you goes out to all participants and sponsors, and especially those that volunteered their time to make this a great event. With your help, we were able to raise another good amount of money for **ASHRAE Research Promotion**. This is money that will stay in Canada and be used to support ongoing research needed to sustain and further our industry. **Thank you everyone!** 



Past-President Adam Graham 2018-2019 OVC Past-President HTS

E-mail: adam.graham@hts.com

I would specifically like to thank our golf chair **Rod Lancefield** for organizing the event and **Stan Milross**, **Ryan Dickinson**, and **David Michelin** for their help on the day of.

The weather decided not to cooperate this year but that didn't stop most groups from getting around and enjoying the great company. This year's **winning team** was **Modern Niagara** including **Pat Goodhue**, **Andrew Klassen**, **Kevin Brett**, and **Jon McDougall**. I'm told that they did not use one of Jon's balls all day...

Some great photos of the event can be found at the link below.

Thank you all for your continued support of this event and the Chapter!

#### Sincerely,

#### Your 2018 Golf Tournament Organizing Committee

ASHRAE Golf Tournament Photos: https://photos.app.goo.gl/NwVumNcvVALpho5h9











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# **What You Missed**

The eighth and final program meeting of the 2017/2018 ASHRAE season was held at the **Centurion** Conference & Event Center on Colonnade Road in Ottawa. theme for the evening was **History**. The meeting was attended by eighty-one people, which consisted fifty-eight members twenty-three guests. The program for the evening was Meeting the of Goals the Vancouver **Declaration on Climate Change in Federal Government Facilities.** The speaker was **Daniel Gosselin** who is the National Director, Energy at BGIS.

President Adam Graham called the meeting to order, introduced the Executive and Board of Governors.

Secretary Aaron Dobson introduced the guests for the evening.

**Celine Baribeau, Membership Promotion Chair** introduced six new members to the Ottawa Chapter.

Adam Graham gave a reminder of the upcoming ASHRAE Golf Tournament on Monday June 4th. The Event is sold out and sponsorship opportunities are available.

Research Promotion Chair Dan Redmond mentioned they are at 110% of the research promotion goal for the year. There are 2 raffle prizes; a pair of tickets to the Ottawa Redblacks pre-season opener and a pair of tickets to the Ottawa Redblacks home opener.

Adam Graham invited the companies to talk about their table-tops. Chris Harder from Spartan Bioscience talked about their legionella testing device for water in HVAC and domestic water systems. History Chair Ryan Dickinson talked about the History tabletop including a collection of photos, chapter minutes and manuals.

History Chair Ryan Dickinson welcomed the 19 Past-Presidents and invited them up for a champagne toast by Past-President Cathy Godin.

Honors and Awards Co-Chair Abbey Saunders handed out Company recognition plaques which recognizes firms and organizations that support ASHRAE by allowing staff to participate with ASHRAE. The companies that were recognized were:

- V&R Associates
- Alscott Air Systems
- Master Group
- Carleton University
- HTS Engineering
- BPA
- Ainsworth
- NRC ASPM
- Rodders CAS
- ProEng Consulting
- Smith + Anderson
- Morrison Hershfield
- Total HVAC
- JP2G
- Walmar Ventilation
- Trane Canada.

Abbey Saunders invited Peter Shaw-Wood - Student Activities Chair to present the Student Award. The Student Award is awarded annually and presented to **ASHRAE** student member based on overall performance and achievement for the year. The award is presented in memory of Noel Kirby, a Past-President. Peter Shaw-Wood presented the award to **Harjit Singh**. Harjit is a student studying araduate Mechanical Engineering at the University of Ottawa. completed his bachelor's degree in technology at the Baba Banda Singh Bahadur Engineering College in Fatehgarh Sahib, India. Over the past two years he has had attended ASHRAE events and has been behalf of the advocating on organization to his peers. His leadership in this regard has resulted



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in a joint entry from Carleton and U-Ottawa into the **ASHRAE Student Design Competition**, which Harjit and his team are tackling on top of their already heavy engineering course load. He has also taken on the position of **Student Chapter President of U-Ottawa** which will begin in the fall of 2018 and last for the remainder of his studies.

Abbey Saunders awarded **Award Baker-Oakes** of Excellence, in honor of two long standing chapter members who passed away too soon, to Chris Fudge. The Baker-Oakes Award of Excellence is presented acknowledge member's a dedication and outstanding service to the Ottawa Valley Chapter. Chris Fudge has been a chapter member since 2003 and has been involved in various capacities including Student Activities and CTTC Chair and most recently serving as a member of the Chapter Executive. In addition, Chris has as Governor representing our chapter at the Regional Level as RVC CTTC.

**Abbey Saunders** awarded the Anniversary Award that is awarded every 5 years in honor of the Chapters Anniversary to Mike is Swayne. Mike Swayne long-standing member who has contributed much towards the historical and continued success of the chapter. A chapter member since the 1980's and member of the telephone committee, member of the BOG, executive and member of the reception and research promotion committees. Mike was





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Chapter President in 2000 and recipient of the Al Oakes Award of **Excellence** in 2001. Mike Swayne thanked the chapter for the award and praised the Chapter on its growth, strength and continued success.

Dan Redmond invited Dan Gosselin to draw the raffle tickets donated by Don Weekes of InAIR **Environmental**. The raffles were won by Aaron Dobson and Bob Kilpatrick. Dan Redmond thanked everyone who donated. \$520 was raised for **ASHRAE Research**.

Adam Graham thanked the Board, Executive, Committee chairs and all the volunteers of the chapter. Special thanks to Sandy Taylor for help in running the chapter and special thanks to Abbey Saunders for support and advice throughout the year. Adam mentioned he has been honored to serve as Chapter President and excited to join the ranks as Past-President. Adam mentioned he has full confidence in Redmond Dan as incomina President and asks everyone to give him full support.

**Nominations** and **Awards** Co-Chair Steve Moons thanked former nominations and awards chair Bob Kilpatrick. Steve Moons proceeded to install the new Executive and Board of Governors. Steve mentioned that Chris Fudge is not able to ascend in his role. Steve Moons called up **Dan Redmond for Chapter President, Aaron Dobson** for President-Elect, Adam Moons for Treasurer, Adrianne Mitani Secretary, for and Celine Della-Valle, Baribeau, Jacob Hough, Chris Frauley, Peter Shaw-Wood as the Board of Governors.

Dan Redmond gave his opening speech as **President of the Ottawa-Valley** Chapter. Dan Redmond invited Adam Graham to present certificate of а appreciation from the Chapter and the **Past-Presidents Pin**. Dan

thanked Adam for his leadership and dedication to the Chapter.

**Redmond** introduced the speaker Dan Gosselin and gave an overview of the presentation which will focus on the importance of relationships, communication and collaboration between all stakeholders to achieve aggressive gas areenhouse emission reductions while maintaining long-term fiscal responsibility. The primary mandate is to work closely with **PSPC** to **achieve** carbon neutrality in their facilities across the country by 2030.

started the Dan Gosselin presentation talking about the **Vancouver Declaration on Clean Growth and Climate Change -**March 3, 2016. Canada stands at the threshold of building our clean growth economy. This transition will create a strong and diverse economy, create new jobs and improve our quality of life, as innovations in electricity power, computing have done before. We will grow our economy while reducing emissions.

The first Ministers declaration is to:

- 1. Increase the level of Ambition which is to implement GHG mitigation policies in support of meeting or exceeding Canada's 2030 target of a 30% reduction below 2005 levels of emissions. including specific provincial and territorial targets and objectives.
- **Promote Clean Economic** 2. **Growth to Create Jobs** which is to implement measures grounded in the view that clean growth and climate change policies are of net economic, environmental and social benefit to Canadians.
- **Deliver Mitigation Actions** which is to **foster investments in** clean technologies to reduce the GHG emissions associated with the production and consumption of energy, including renewable and

alternative energy, energy efficiency and storage, and other technologies which may include carbon capture and storage.

4. Increase Action on Adaption and Climate Resilience which is to implement strong, complementary adaption **policies within** respective jurisdictions address climate risks facing our populations, infrastructures, economies and ecosystems.

long-term goal is 80% reduction by 2050. Dan mentioned that **PSPC** has a target to achieve carbon neutrality in their facilities by 2030. The purpose for the targets is to draw a road map for other Government departments to follow.

Dan talked about what BGIS does for **PSPC** which is facility management. BGIS has various contracts - Pacific, Western Canada, Ottawa-Gatineau, Ontario, Parliament/Tunney's Pasture Quebec Atlantic Campus, and **BGIS** Canada. oversees the management of 5M+ square meters on behalf of Government that is leased and owned and of that 3M square meters are property owned by the Crown. BGIS is in year 4 of 7 with an option to renew an additional 6 years for a total of 13 years.

Dan talked about the stakeholder engagement with PSPC, NRCan, Federal Departments and BGIS. BGIS is working with PSPC to create road map to carbon neutrality. PSPC developed the Carbon Neutral Portfolio Plan which is the road map to achieve carbon neutrality at a macro level across the country. This includes activity-based workplace densification and divestment projects such as:

- LED lighting
- Retro-commissioning
- Smart buildings
- Solar PV
- Electricity procurement
- Other fuels.





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1785 Woodward Drive Ottawa, ON K2C 0P9 CANADA Tel.: (613) **723-9585 x128** Fax.: (613) 723-9584 The biggest reduction will be from deep retrofits which will be re-engineering of HVAC and lighting systems. This will account for 26% in reduction of GHG.

**Dan** talked about the **GHG Options Analysis Methodology**and mentioned they have been directed to look at **4 options**.

Option 1 is the **minimum performance** which is the **National Energy Code** for new buildings.

Option 2 is everything that can be done to **reduce greenhouse gas emissions** if it is **cost neutral over 25 years**. They look at life cycle costing of the different options and if it is equivalent to the first option over 25 years even though the capital is much more, they can consider it.

Option 3 is looking at everything they can possibly put into the building to maximize GHG emission reduction with no life cycle costing consideration of 25 years. This is so all technology can be considered within this option to provide long term benefit.

Option 4 is a hybrid option and the option. recommended The Consultant, **BGIS** Client and stakeholders are sitting down and looking at all the options to determine what really makes sense which is between the 25-year life cycle costing neutral and the maximum GHG reduction and looking at incremental cost that will bring a lot of benefit.

For single-disciplinary projects such as **equipment replacement or repairing equipment** they are being asked to select options to

maximize GHG emission reduction and are cost neutral over 25 years.

Dan talked about the flagship facility for PSPC at 25 St. Clair in Toronto where they went with the maximum GHG reduction option. The energy consumption and GHG emissions were discussed with the different options. The maximum GHG reduction option had the best energy consumption but cost \$13M more over the 25-year life cycle costing neutral. They are seeing long term benefit in not just looking at initial cost.

Dan mentioned that >75% of emissions are from 50 buildings. A short-term target is 25% GHG reduction by March 31, 2021 (2014-2015 Baseline). 43 studies are currently on the go which are looking at the 4 options to implement to achieve the short-term goal of GHG reduction. The focus is on the high GHG buildings, looking at a 25-year life-cycle costing neutral, working with PSPC on their smart building initiative and optimized operations through the facility management side.

**Dan** talked about how the aggressive carbon reduction will be scaled from the carbon neutral studies to the implementation. 197 Energy Projects have been implemented during the 2017-2018 program of work. All projects will be integrated with Operations. Throughout the studies, the operations group has been at the table to be aware of the decisions being made and to engage them in the process. Monitor continuously optimize the system to maintain long term savings.

**Dan** talked about the technology they are using. 75%+ GHG reduction is with technology that already exists including:

- Good building envelope
- LED lighting
- Move to dedicated outdoor air systems with low temperature hot water / chilled water hydronic system or VRF
- Energy recovery ventilators
- Heat recovery from internal loads
- Optimized building automation systems
- Hybrid geo-exchange system
- Solar panels.

For **emerging technologies**, Dan talked about:

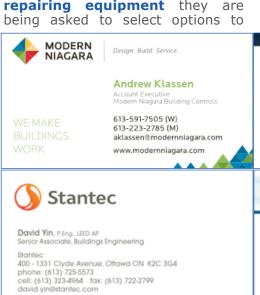
- Battery storage
- Carbon sequestration
- Double skin wall with translucent PVs or PVs attached to envelope,
- Electrochromic glass
- Green roofs
- Hydrogen fuel cells
- Maximize thermal storage,
- Renewable biomass
- Run of river hydro power
- Vertical wind power.
- Any other emerging technology, especially Canadian technology.

**President Dan Redmond** thanked the speaker and reminded all attendees of the survey.

Next meeting is in **September**. Details to be posted in the next communique. Meeting adjourned at 20:58.

All chapter meeting pictures and videos are posted online.

Visit <a href="www.ashrae.ottawa.on.ca">www.ashrae.ottawa.on.ca</a> and search under the Chapter year for links.



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# **2017-2018 Research Promotion Campaign**

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

220%

210%

200%

190%

180%

170%

160%

150%

140%

130%

120%

110%

100%

90% 80% 70% 60%

50% 40% 30% 20% Many of you are aware that ASHRAE research plays an important role in our everyday lives. Our environment including everything from our homes, offices and hospitals to quality of food and living conditions in airplanes are dependent upon the research conducted by ASHRAE to keep people healthy and comfortable. Every dollar **ASHRAE** raised by **Research Canada** stays in Canada to further research in the HVAC&R industry. Furthermore, for every dollar raised,

two to three dollars are invested in research, here in Canada.

Thanks to the dedication of our donors and the efforts of the 2017-2018 RP Campaign Team, the Ottawa Valley Chapter has raised 121% of our total goal of \$30,100 for 2017-2018. A total of \$36,517 was raised for Research Promotion. Thank you very much for all of your support!!!

In addition to the amount raised the chapter was able to **fully fund the scholarship** that we have been working towards over the past two years. The remaining amount of \$30,000 was sent to **Society** in **May**. The money submitted to the scholarship counts towards our **Research Promotion** goal and takes our **total amount raised** to \$66,517, or **221% of the goal!** 



President
Daniel Redmond
2018-2019
OVC President
Carleton
University

E-mail: daniel.redmond@carleton.ca

We are excited that we will be in a position to start awarding an **annual** scholarship to students beginning next year!

At the **May** Program Meeting, four tickets to see the **Ottawa Redblacks** were graciously donated by **InAir Environmental** and \$520.00 was raised towards this year's campaign. Thank you very much **InAir Environmental** for your support!

Thank you very much to our **2017-2018 RP Campaign donors**.

<b>ASHRAE Partner</b>	ASHRAE Associate	Major Donor Silver
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Modern Niagara Ottawa Total HVAC Walmar Ventilation Inc. Engineered Air Ottawa Master Group Johnson Controls Ottawa C&S Heating Ltd. Isotherm Commissioning Ltd. InAir Environmental	Aaron Dobson T.A. Morrison & Co. Inc. JP2G Consultants Inc. Optimum Mechanical Solutions R.J. McKee Engineering Ltd. Dilfo Mechanical Ltd. Darryl Boyce Daniel Redmond	Abbey Saunders Chris Frauley Richard Cameron Adam Graham Stan Millross Steve Moons Jacob Hough Adrianne Mitani Mike Swayne Chris Fudge Adam Moons Robert Kilpatrick Subash Vohra Andrew Douma Belimo Robert Kilpatrick Subash Vohra Andrew Douma Andrew Douma Belimo Robert Kilpatrick Subash Vohra Andrew Douma Andrew Douma Belimo Robert Kilpatrick Subash Vohra Andrew Douma Andrew Douma Belimo Robert Kilpatrick Subash Vohra Andrew Douma Andrew Dough A

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# **Membership Update**

I hope everyone is enjoying the summer and are starting to get ready for the **beginning of the new ASHRAE season**.

I am happy to say that we have achieved our chapter growth goal! We started the year with 418 members with a goal of 8 new members. This goal is set by our MP Regional Vice Chair. On July 1st, 2018, our year end total for the 2017-2018 Society year was 427.

The **list of new members** that joined our chapter during the summer will be listed in the upcoming **September newsletter**.

At any time, if you have any questions or comments regarding your **ASHRAE membership**, please do not hesitate to contact me.

Thank you all for the continued support and participation in your local ASHRAE chapter.



Governor
Celine Baribeau
2018-2019
OVC Membership
Committee
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Looking forward to seeing everyone at the **next ASHRAE** meeting in **September**.

### **News Update**

ASHRAE Wraps Up 2018 Annual Conference

ATLANTA – HVAC&R professionals engaged in a meaningful exchange of knowledge and experience at the **2018 ASHRAE Annual Conference** in **Houston**. The conference took place June 23-27 at the **Hilton Americas-Houston Hotel** and the **George R. Brown Convention Center**.

The **Annual Conference** offered an extensive technical program with eight tracks and one mini-track, including numerous presentations, tours and social events. The five-day event also featured meetings of technical, standards and standing committees, developing guidance for the future of the industry and ASHRAE.

Sheila J. Hayter, P.E., Fellow ASHRAE, took office as the 2018-2019 ASHRAE President. Her theme for the Society year, "Building Our New Energy Future," focuses on the important role buildings will play as the traditional electrical grid continues to evolve toward a smart grid with advances in renewable energy.

"ASHRAE will play a key role in accelerating the use of innovative technologies as we move toward greater energy efficiency and healthier buildings," says 2018-2019 ASHRAE President Sheila J. Hayter, P.E. "This conference is a perfect example of how we're taking the lead through the sharing of knowledge and

resources to be the bridge between industries to our new energy future."

The **plenary session** featured a presentation of awards and honors recognizing the outstanding achievements and contributions of members to the Society and the industry. **Keynote speaker Dr. Ainissa Ramirez**, research scientist and author, closed the session with an empowering presentation on **"Inspiring the Next Generation."** 

During his State of the Society address, outgoing 2017-2108 ASHRAE President Bjarne W. **Olesen** spoke on the Society's expanding partnership with the UN **Environment**, which training courses and resources to support the phase-out activities of ozone-depleting substances around the world. In addition to highlighting the recent opening of new offices in Washington, D.C. and Dubai, Olesen emphasized **ASHRAE's Europe** by engagement in stationing staff in Brussels, **Belgium** beginning in July.

conference's technical The program addressed trends in integrated building design, HVAC&R analytics, best practices in standards authoring, impacts of extreme and weather scenarios buildings, along with other current topics. A seminar highlighting the proposed ASHRAE Hot Climate Guide Design provided opportunity for attendees contribute ideas to improve the design, construction and operation of buildings in hot climates.



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Jacob Hough
2018-2019
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The Houston Chapter partnered with the Veterans of Foreign Wars (VFW) to perform energy audits and equipment upgrades, as ASHRAE's 2018 Annual Conference sustainable footprint project. The project is intended to leave a lasting legacy representing ASHRAE's commitment to sustainability.

The ASHRAE Learning Institute (ALI) offered four half-day short courses, two full-day seminars and four additional half-day courses providing technical information to industry professionals. The top attended courses were:

- Advanced Designs for Net Zero Buildings;
- Designing and Operating High-Performing Healthcare HVAC Systems;
- Humidity Control II: Real-World Problems and Solutions; and
- Commissioning Process in New & Existing Buildings.

The **2019 ASHRAE Winter Conference** takes place Jan. 12-16, 2019 in **Atlanta, Ga**. The **AHR Expo** will be held in conjunction with the Winter Conference, Jan. 14-16.

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## ASHRAE Introduces 2018–2019 President, Officers and Directors

**ATLANTA** – ASHRAE installed its 2018–2019 president, executive committee officers and directors during its **Annual Conference** in **Houston**, which was held June 23–27.

ASHRAE's 2018-2019 president is Sheila J. Hayter, P.E., Fellow **ASHRAE**. During her inaugural presidential address, Hayter announced her term's **theme** will be "Building New Our Energy Future." The theme focuses on the important role buildings will play in our energy future as the traditional electrical grid continues to evolve toward a smart grid with advances in renewable energy.

"ASHRAE is eager to establish new networks and partnerships as we expand the Society's opportunities to engage the many industry sectors that have a stake in our new energy future," says Hayter. "We will strengthen our leadership position by serving as a bridge that connects buildings, energy and the environment to new ideas and technologies to advance toward a more sustainable world for future generations."

While serving as the Society's president, Hayter will continue her role as a group manager with the Department of Energy's National Renewable Energy Laboratory (NREL) in Golden, Colo. She will also serve as chair of ASHRAE's Board of Directors and Executive Committee. Elected officers who will serve one-year terms are as follows:

 President-Elect: Darryl K. Boyce, P.Eng., Fellow Life Member ASHRAE, assistant vice president, facilities management and planning, Carleton University, Ottawa, Ontario, Canada

- Treasurer: Charles E. Gulledge III, P.E., Member ASHRAE, HBPD, senior mechanical engineer, Environmental Air Systems LLC, High Point, N.C.
- Vice President: Julia A. Keen, Ph.D., P.E., Fellow ASHRAE, BEAP, HBDP, professor, Architectural Engineering & Construction Science Department, Kansas State University, Manhattan, Kan.
- Vice President: Malcolm Dennis Knight, P.E., Fellow ASHRAE, BEMP, owner, Whole Building Systems, LLC, Mt. Pleasant, S.C.
- Vice President: Michael C. A. Schwedler, P.E., Fellow ASHRAE, applications engineering manager, Trane, La Crosse, Wis.
- Vice President: Farooq Mehboob, P.E., Fellow Life Member ASHRAE, principal consultant, S. Mehboob & Company Consulting Engineers, Karachi, Pakistan

**ASHRAE** also introduced its newest **directors** who will serve three-year terms from 2018–21:

- Region I Director and Regional Chair: Christopher G. Phelan, manager of engineered services, Thermco, Clifton, N.J.
- Region II Director and Regional Chair: Jeff Clarke, CEO, Enviroair Industries, Inc., Montreal, Quebec
- Region III Director and Regional Chair: Dunstan Laurence Macauley III, HBDP, director of mechanical engineering, Setty and Associates, Fairfax, Va.

- Region XI Director and Regional Chair: Russell J. Lavitt, P.Eng., senior mechanical engineer, Stantec, Winnipeg, Manitoba
- Region at Large Director and Regional Chair: Ahmed Alaa Eldin Mohamed, Ph.D., P.Eng., chairman, Middle East Gate Holding (MEG), Abu Dhabi, United Arab Emirates
- Director-at-Large: Katherine G. Hammack, Fellow ASHRAE, partner, Ernst & Young, Mclean, Va.
- Director-at-Large: Sarah E.
   Maston, P.E., CPMP, president,
   Green Footprints Commissioning,
   Inc., Hudson, Mass.
- Director-at-Large: Chandra Sekhar, Ph.D., Fellow ASHRAE, professor, Department of Building, National University of Singapore, Singapore

ASHRAE Awards More Than \$113,000 to Fund 25 Undergraduate Projects

**ATLANTA ASHRAE** today announced its 2018 **Undergraduate Program Equipment Grants**, encompassing a group of 25 undergraduate projects led by students from around the world. The awarded grants total more than \$113,000 and will help the winning students to complete undergraduate projects.

The Undergraduate Program Equipment Grants is an ASHRAE program that provides grants to engineering, technical and architectural schools worldwide. Its goal is to increase student knowledge, learning and awareness of the HVAC&R industry through the design and construction of senior projects. Grants are used to fund equipment and supplies for senior projects and two-year technical

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school projects that focus on ASHRAE-related topics.

"Participating in the **ASHRAE** Undergraduate Program Equipment Grants Program gives students the opportunity to be challenged through hands-on experience working on a real-world professional project," says Bill Simpson, chair of the **ASHRAE** Student **Activities** Committee. "Not only do these grants provide a greater depth of industry knowledge to undergraduate engineering, technical students, architectural they demonstrate ASHRAE's commitment to investing in future generations of building professionals."

Winning projects were chosen based upon guidelines including: relevance as an ASHRAE-related topic; long-term student impact of the project; amount of funding requested; and the participating students' involvement with ASHRAE.

This year's winning projects are:

- "Atmospheric Water Harvesting," California Polytechnic State University – San Luis Obispo
- "Supply of Equipment to the Laboratory of Thermotechnology," National University of Asunción
- "Indoor Air Quality Based Economizer Trainer Construction," New York City College of Technology
- "Development of Split AC Test Rig Working on Inverter Technology and Charged with Environment Friendly Refrigerant R-32 - As a Laboratory Equipment for Engineering Students," Nirma University
- "Integration of Smart Building Control into Existing Building Automation System (BAS) Using the Field-Programmable Gate Array (FPGA) Technology," North Carolina A&T State University
- "A Heating and Cooling Learning Environment to Test Thermoelectric Panel Performance Which Includes Natural

- Convection Flow Visualization Using PLIF and PIV," Oklahoma State University
- "An Organic Rankine Cycle Learning Environment Using HVAC&R Components," Oklahoma State University
- "A Dual-Use High Efficiency Variable Speed Dehumidifier," Oklahoma State University
- "A Variable Speed Dedicated Outdoor Air System For Low Energy Homes," Oklahoma State University
- "Refrigeration, Air Conditioning, and Ice-Plant System Under One Condensing Unit As a Demonstrator-on-Wheels for Engineering Students," Pamantasan ng Lungsod ng Maynila
- "Visualizing the Invisible: a Hands-on Teaching Laboratory for Indoor Air Quality Principles," Portland State University
- "Net Zero Water (NZW) and Desiccant-Assisted Evaporative Cooling (EC) for Data Center Air Conditioning," University of Texas of the Permian Basin
- "Design and Prototyping of a Cloud-Based Smart Dual Fuel Switching System (SDFSS) for Residential Hybrid HVAC System for the Ryerson Engineering Program," Ryerson University
- "Investigation and Design to Improve Comfort Needs and Energy Efficiency in a Historical University Building," St. Ambrose University
- "Training Unit for Variable Refrigerant Flow (VRF) Air Conditioning Systems," Technological and Higher Education Institute of Hong Kong
- "Build Hydronic System,"
   Universidad Autonoma de Nuevo
   Leon
- "Project and Development of a HVAC Confluent Jets Systems Installed in Corner Walls of an Experimental Chamber," Universidade do Algarve
- "Optimization and Construction of the Standing Wave Thermoacoustic Refrigerator,"

- Universiti Tunku Abdul Rahman
- "Design and Construction of a Guarded Hot Box for Thermal Performance Evaluations of Building Envelope," University of Alabama
- "A Web-Based Dashboard System for Real-Time Monitoring of Environmental Conditions and Electricity Generation/ Consumption in Louisiana Solar Decathlon Home," University of Louisiana at Lafayette
- "Pump/Turbine Generator Workbench," University of North Texas
- "Design of Energy Recovery Heat Exchanger Coupled with Phase Change Materials for Building Temperature Control," University of North Texas
- "A Closed-Loop Test Bed for Air-Conditioning and Heat Pump Equipment," University of Oklahoma
- "Tiny Test Facility for Building Energy Modeling," University of Utah
- "Calorimeter Test Apparatus for Refrigerant Compressors," University of Wisconsin—Madison

The top two projects will be presented during the Student Program at ASHRAE's 2019 Winter Conference, taking place January 12-16, 2019 in Atlanta.

The top projects are:

 "A Dual-Use High Efficiency Variable Speed Dehumidifier," Oklahoma State University

and

 "Refrigeration, Air Conditioning, and Ice-Plant system under one condensing unit as a demonstrator-on-wheels for Engineering Students," Pamantasan ng Lungsod ng Maynila.





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Roderic Potter
BIM Mechanical Coordinator

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Summer 2018

Capital Communiqué



#### Mechanical Engineering Technologist - Ottawa

#### Overview

Jp2g Consultants Inc. is an employee owned, multi-disciplinary consulting firm providing a comprehensive range of planning, engineering, environmental, and project management services to the public and private sectors, from offices located in Ottawa and Pembroke. Jp2g is committed to maintaining client satisfaction, encouraging employee growth, and enhancing the communities we live in.

Our growing Ottawa office is seeking a talented and driven **Mechanical Engineering Technologist** to join our team. We're looking for someone who is diligent, team-oriented, and has a strong understanding of mechanical engineering for buildings.

At Jp2g, you will work with a dynamic multi-disciplinary group of engineers, technicians, project managers, and planners. Jp2g believes in employee empowerment. As a valued member of our professional team, you will enjoy a unique working environment and will be provided with opportunities to demonstrate your initiative while developing your skills.

#### Job Description

As a member of our professional team, you will be responsible for a variety of assignments for the Mechanical Engineering Department. With Jp2g, you will have opportunities to work on a wide variety of projects, with emphasis on federal, commercial, and institutional clients. The focus of Jp2g's mechanical work includes new buildings, renovations, restoration and adaptive renewals, investigations, and reports.

#### **Role and Responsibilities**

#### Mechanical Design Expertise

- Maintain the technical competence and production requirements of Jp2g's Mechanical department
- Strong ability to read and understand mechanical drawings
- Carry out site surveys to understand the existing mechanical systems
- Develop mechanical designs and layouts for fire protection, plumbing, and HVAC systems
- Size ductwork and piping in accordance with the company's standards
- Develop details, sections, and layouts of mechanical rooms and service spaces
- Prepare building condition assessment reports, and construction budgets
- Review codes and standards and obtain preliminary approvals where appropriate
- Review shop drawings during construction, visit construction sites to review general conformance of mechanical designs, prepare field observation reports to address construction progress and deficiencies
- Setup AutoCAD drawings as per the company's standard
- Prepare AutoCAD drawings from sketches, mark-ups, and/or design
- Upon completion, verify CAD drawings against such sketches to ensure accuracy of work
- Maintain familiarity with current techniques, codes, and standards to sustain and improve technical skills

#### Job Information

Job ID: 18-006

Location: Ottawa, Ontario

Experience (years): 5+

Status: Permanent, full-time

**Industry:** Building Services

Number of Positions: 1

#### How to Apply

Send your resume to: **Email:** careers@jp2g.com

**Subject:** 18-006 – Mechanical Engineering Technologist

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

#### Mechanical Engineering Technologist - Ottawa



#### Collaboration

- Work with a team of project managers, engineers, and technologists
- Assist mechanical engineers with project execution, design development, construction documents, budget estimates, and coordination with other disciplines
- Attend coordination meetings with design team
- Coordinate with industry, other disciplines, and clients
- Familiarize with architectural, structural, and electrical drawings for coordination (e.g. space limitations and interferences)
- Share expertise with colleagues and other offices

#### **Project Management**

- Complete projects independently when required
- Build and maintain positive relationships with colleagues, other consultants, and key stakeholders to ensure projects run smoothly and to resolve concerns promptly and efficiently
- Assist in researching new systems, resources, analytical processes, procedures, and working practices to identify and implement changes to increase efficiency, productivity, and overall profitability

#### Qualifications

- Strong desire to learn and for advancement and professional development
- Minimum 5 years' experience in the consulting engineering industry or direct experience with HVAC contractors in developing interference drawings
- ❖ C.E.T. or C.Tech. designation
- Diploma in Mechanical Engineering Technology
- AutoCAD training from a recognized College and exposure to HVAC and plumbing layouts and systems
- CAD experience and capability
- Ability to work in a complex and fast-paced team environment, dealing with multiple projects and clients
- Sound communication skills (oral and written)
- Strong sense of initiative and ability to prioritize tasks
- Strong desire to learn and for advancement and professional development
- Strong attention to details without losing sight of the big picture
- Excellent problem-solving and decision-making skills
- Working knowledge of MS Office (Word, Excel, PowerPoint, etc.)
- Reliable vehicle access is required

#### Asset Qualifications (beneficial, but not required)

- Experience in generating drawings in Revit
- Bilingual (English and French) including proficiency in technical translations

#### **Compensation and Benefits**

- Friday afternoons off year-round (36 hour/week)
- Group RSP planning opportunities
- Professional development and advancement opportunities
- Competitive compensation and benefits package
- Shareholder opportunities

The successful candidate will be required to complete a CISD security application (Level II Secret).

Jp2g welcomes applications from people with disabilities. Accommodations are available on request for candidates taking part in all aspects of the selection process.



#### Mechanical Team Leader - Ottawa

#### Overview

Jp2g Consultants Inc. is an employee owned, multi-disciplinary consulting firm providing a comprehensive range of planning, engineering, environmental, and project management services to the public and private sectors, from offices located in Ottawa and Pembroke. Jp2g is committed to maintaining client satisfaction, encouraging employee growth, and enhancing our communities.

Our growing Ottawa office is seeking a talented and driven **Mechanical Team Leader** to join our team. We're looking for a mechanical professional who is team-oriented and who enjoys people management, design, and business development.

At Jp2g, you will work with a dynamic multi-disciplinary group of engineers, technicians, project managers, and planners. As a valued member of our professional team, you will enjoy a unique working environment and will be provided with opportunities to demonstrate your initiative while developing your skills.

#### Job Description

Working under the direction of the Mechanical Department Manager, you will be responsible for guiding, coaching, and training direct reports; assigning and monitoring work progress; providing mechanical design and project management; and engaging with clients.

With Jp2g, you will have opportunities to work on a wide variety of projects with federal, commercial, and institutional clients. The focus of Jp2g's mechanical work includes new building, renovation, restoration and adaptive renewals, investigations, and reports.

#### Role and Responsibilities

#### Leadership

- Provide day-to-day supervision of assigned employees
- Mentor junior staff, recommend appropriate training/coaching, prepare evaluation reports
- Direct, motivate, and appropriately influence others
- ❖ Build a strong sense of teamwork, purpose, and group identity
- Display a positive attitude, serve as credible model, and set high standards for the department
- Articulate clear goals and expectations
- Delegate appropriate levels of authority to others

#### **Business Development**

- Maintain existing business and develop new business
- Represent Jp2g at industry events (e.g. ASHRAE, Ottawa Construction Association)
- Develop a reputation for honesty, trust, and dependability with clients

#### Job Information

Job ID: 18-007

Location: Ottawa, Ontario

Experience (years): 8+

Status: Permanent, full-time

**Industry:** Building Services

Number of Positions: 1

#### How to Apply

Send your resume to:

Email: careers@jp2g.com

**Subject:** 18-007 – Mechanical

Team Leader

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

#### Mechanical Team Leader – Ottawa



#### **Project Management**

- Prepare fee proposals
- Work with a team of engineers and technologists
- Prepare schedule of tasks required to complete a project, hours required, and critical performance data
- Assign tasks to technologists and designers; supervise for content and completion in assigned hours
- Chair project meetings
- ❖ Make sure internal quality assurance is performed prior to issuance of tender package
- Coordinate mechanical systems installation requirements with other design disciplines; ensure proper coordination of documents with the other design disciplines

#### Mechanical Engineering Expertise

- Undertake feasibility studies, assist Department Manager to develop engineering concepts, concept reports, and construction budgets
- Review codes and standards and obtain preliminary approvals where appropriate.
- Carry out site surveys to understand the existing mechanical systems
- Conduct calculations of hydraulic, heating, and cooling loads of buildings
- Complete design of mechanical systems (fire protection, plumbing, HVAC, and controls) for building projects including selection of mechanical equipment
- Complete layout of plumbing, piping, and ductwork through complex facilities integrating multiple mechanical spaces and systems
- Prepare specifications to supplement drawings in project bid packages
- Review contract documents prior to tender for completeness
- Perform contract administration
- Maintain familiarity with current techniques, codes, and standards to sustain and improve technical skills

#### Qualifications

- Strong desire to learn and for advancement and professional development
- Minimum 8 years' experience in the consulting industry
- Strong ability to work independently in a complex environment, dealing with multiple projects and clients
- Experience in project management
- Sound communications skills (oral and written) as demonstrated through client and staff relations
- Knowledge of OBC, NBC, ASHRAE, CSA and NFPA standards
- Familiar with HVAC software (such as Carrier HAP and Trane Trace) and NMS specifications
- Strong sense of urgency and ability to prioritize tasks
- Excellent problem solving and decision-making skills
- Reliable vehicle access is required

#### **Compensation and Benefits**

- Friday afternoons off year-round (36 hour/week)
- Group RSP planning opportunities
- Professional development and advancement opportunities
- Competitive compensation and benefits package
- Shareholder opportunities

The successful candidate will be required to complete a CISD security application (Level II Secret).

Jp2g welcomes applications from people with disabilities. Accommodations are available on request for candidates taking part in all aspects of the selection process.



#### Senior Mechanical Engineer - Ottawa

#### Overview

Jp2g Consultants Inc. is an employee owned, multi-disciplinary consulting firm providing a comprehensive range of planning, engineering, environmental, and project management services to the public and private sectors, from offices located in Ottawa and Pembroke. Jp2g is committed to maintaining client satisfaction, encouraging employee growth, and enhancing the communities we live in.

Our growing Ottawa office currently requires a qualified **Senior Mechanical Engineer**. We're looking for someone with a minimum of 15 years' experience in the consulting industry in the field of mechanical building services.

At Jp2g, you will work with a dynamic multi-disciplinary group of engineers, technicians, project managers, and planners. Jp2g believes in employee empowerment. As a valued member of our professional team, you will enjoy a unique working environment and be provided with opportunities to demonstrate your initiative while developing your skills.

#### **Job Description**

As a member of our professional team, you will be responsible for a variety of assignments for the Mechanical Engineering Department. Jp2g provides opportunities to work on a wide variety of projects, with emphasis on federal, commercial, and institutional clients. Focus of mechanical work includes building HVAC, plumbing, fire protection, energy management, direct digital controls (DDC), investigations and reports.

#### Role and Responsibilities

#### Technical Skills

- Undertake feasibility studies, assist Department Manager to develop engineering concepts, concept reports, and construction budgets
- Review codes and standards and obtain preliminary approvals where appropriate
- Carry out site surveys to understand the existing mechanical systems
- Conduct calculations of hydraulic, heating and cooling loads of buildings
- Complete design of mechanical systems (fire protection, plumbing, HVAC and controls) for building projects including selection of mechanical equipment
- Complete layout of plumbing, piping, ductwork and equipment through complex facilities integrating multiple mechanical spaces and systems
- Prepare specifications to supplement drawings in project bid packages
- Review contract documents prior to tender for completeness
- Perform contract administration
- Maintain familiarity with current techniques, codes, and standards to sustain and improve technical skills

#### Job Information

Job ID: 18-008

Location: Ottawa, Ontario

Experience (years): 15

Status: Permanent, full-time

**Industry:** Building Services

Number of Positions: 1

#### How to Apply

Send your resume to:

Email: careers@jp2g.com

**Subject:** 18-008 – Senior Mechanical Engineer

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

#### Senior Mechanical Engineer - Ottawa



#### Teamwork

- Attend client meetings as directed by Department Manager
- Attend coordination meetings with design team
- Coordinate mechanical systems installation requirements with other design disciplines
- Mentor junior staff

#### Project Management

- Manage project tasks within assigned time and budget constraints
- Assign tasks to Designer and CAD operator; supervise delegated tasks for content and completion in assigned hours
- Prepares project fee proposals
- Prepare schedule of tasks required to complete project, hours to perform tasks, critical performance data
- Maintains existing business and develops new business opportunities
- ❖ Any other tasks assigned by Department Manager required to assist in the continued success of the firm

#### Qualifications

- ❖ Bachelor's degree in Mechanical Engineering
- Minimum 15 years of experience in a consulting engineering office in the field of mechanical building services – fire protection, plumbing, HVAC and controls
- Professional Engineer licensed in the Province of Ontario
- Strong ability to work independently and in a complex environment, dealing with multiple projects and clients
- Sound communications skills (oral and written) as demonstrated through client and staff relations
- Demonstrate experience working with other consultants and contractors, and coordination of major projects
- Knowledge of OBC, NBC, ASHRAE, CSA and NFPA standards
- Familiar with HVAC software (such as Carrier HAP and Trane Trace) and NMS specifications
- Strong sense of urgency and ability to prioritize tasks
- Excellent problem solving and decision-making skills
- Basic CADD experience
- Reliable vehicle access is required

#### Asset Qualifications (beneficial, but not required)

- \* Bilingual (English and French) including proficiency in technical translations
- LEED certification / Experience implementing sustainable design (LEED projects)
- Experience in project management

#### **Compensation and Benefits**

- Friday afternoons off year-round (36 hour/week)
- Group RSP planning opportunities
- Professional development and advancement opportunities
- Competitive compensation and benefits package
- Future shareholder opportunities

The successful candidate will be required to complete a CISD security application (Level II Secret).

Jp2g welcomes applications from people with disabilities. Accommodations are available on request for candidates taking part in all aspects of the selection process.

# 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 **E-mail**: amoons@master.ca the ASHRAE Ottawa Valley Website today.



**Treasurer** Adam Moons 2018-2019 **OVC Treasurer** Master Group

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) 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 for more details.



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

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 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** 2018-2019 Publicity Committee Co-Chair HTS Engineering Ltd.

E-mail: rod.lancefield@hts.com

**Publicity** Rod Lancefield 2018-2019 Publicity Committee Co-Chair HTS Engineering Ltd.

E-mail: rod.lancefield@hts.com

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