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MARCH GAZETTE| *Our 98th year!*

March 2021- Vol 68, Issue 3

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VIEWPOINT

Tenant Influence on Building Automation Controls

From the humble beginning of the bi-metal thermostat to the fully integrated systems of today. Building Automation has evolved from simple systems, to pneumatic to the Digital Controls of today.

Today's building tenants are more educated. Occupants want the same control over their office environment as they do in their homes. This shift is forcing building owners to improve their buildings with technologies utilizing Restful API's, Bluetooth connectivity, motion sensing, asset tracking, room scheduling and way finding. These technologies allow occupants to utilize their smart phone to find their way through the building, change lighting, adjust space temperature, and raise or lower blinds , This level of control has become a top wish by some tenants.

This shift in the built environment, has pushed our BAS controls companies to become systems integrators and not just "parts" suppliers. In some cases the typical OT (Operational Technology) Network has had to evolve into a converged network. The BAS contractor no longer "owns" the network they use to communicate inside the building. They are now residing on the IT(Information Technology) Network, along with AV, Security, Access Control, and Lighting. Floor level networks utilizing Daisy chain IP controllers, spanning tree protocols, way finding, Bluetooth connectivity, integration of meeting room scheduling systems, access control and many other historically siloed systems now become integrated with one another. This new built environment has pushed traditional BAS companies to diversify, giving them an incentive to change.

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We must become better at understanding the needs of the building occupants and manage those expectations to deliver systems that are robust, secure, and designed to maximize tenant engagement.

Antonio Figueiredo

Past President,
ASHRAE Toronto Chapter

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Antonio Figueiredo to post your business card here!

SUMMARY OF JANUARY 18 WEBINAR

ASHRAE's Building EQ

Doug Cochrane, P. Eng., LEED AP

ASHRAE Distinguished Lecturer

On 01/18/2021, Doug Cochrane, an ASHRAE distinguished lecturer, gave a presentation on ASHRAE's Building EQ. Building EQ is ASHRAE's first ever web-based portal which is used for doing energy assessments of buildings. It benchmarks the building against similar buildings in the same climate zone by providing them a score between 0 to 200, with 0 being net zero and 200 being inefficient. Moreover, it also provides various energy efficiency measures for the user to choose from and their cost impacts.

Building EQ is designed for buildings in operation; as well as, for buildings which are in the design phase or have been operating for less than a year. For buildings in operation, an engineer will have a walk through of the building to gather all the data which he or she needs to input into Building EQ. Building EQ also has indoor environmental quality (IEQ) considerations to input before generating the output. For buildings in the design phase, or in operation for less than a year , energy models are used for understanding potential energy usage. ASHRAE Standard 211 In Operation rating is then used as a reference to help generate an asset rating based on the input received. Output generated must be in alignment with the Level 1 Audit report of Standard 211.

Doug then presented a walkthrough of the portal. Some key features of the portal include the help and suggestion section which tells the end user whether the input is correct or incorrect. It has extensive library of building types such as multi-use, labs, etc. It is available in multiple languages and the metric system. Reports can be generated such as the User Input Report and Building EQ Label Report for free, while other reports such as the Disclosure Report, Spreadsheet Audit Report, Narrative Audit Report are available at a cost.
People can access the portal and learn about it further by following this link
https://www.ashrae.org/technical-resources/building-eq

Summary by Eshan Patil

Gazette Committee, ASHRAE Toronto Chapter

SUMMARY OF FEBRUARY 1 WEBINAR

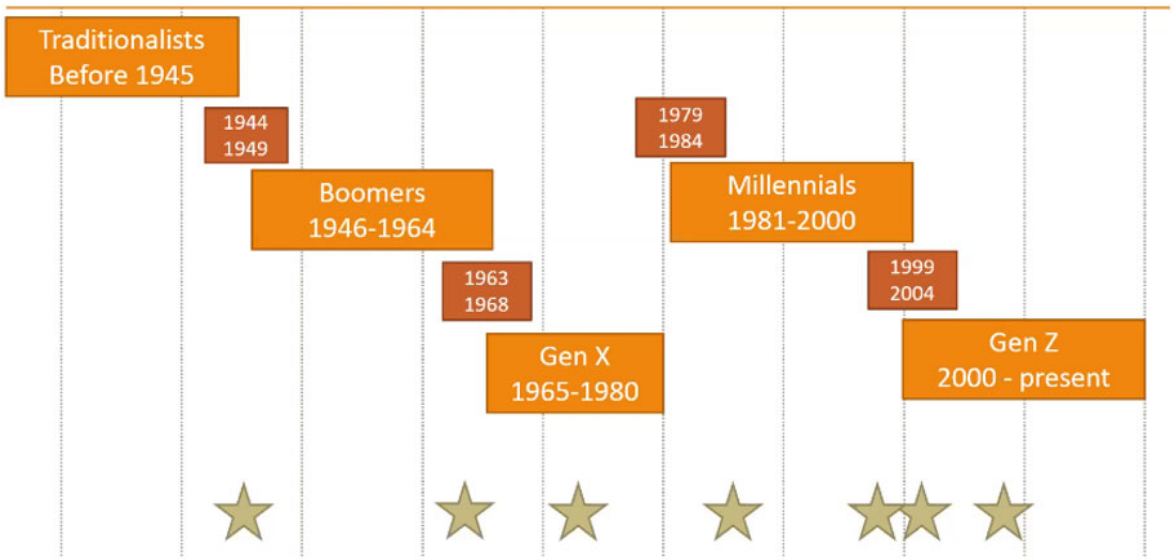
ASHRAE Toronto's February Webinar

Take it from a Millennial: Generation Differences in the Workforce

ASHRAE Distinguished Lecture: Pam Duffy, P.E.

February's webinar focused on delivering practical information on the generational differences in the workplace, and their effect on communication, workplace expectations, manager/employee relationship and team dynamics. To help us understand these generational differences, we had the pleasure to learn from Pam Duffy, an ASHRAE Distinguished Lecturer, P.E., and owner of Spark One Solutions. Through her lecture Pam hopes to provide solutions on how employers can recruit, retain, and mentor millennials to become their next leaders, as well as discussing other tough questions, such as how to balance tried and true strategies while not stifling new ideas.

Pam brings into attention the difference of our current workforce pool compared to previous years, and the challenges that the current management system faces. The current workplace system was designed to work with 3 generations working side by side and each generation transitioning from entry level positions to middle management, and finally upper management. However, 2020 marks the first year that 5 distinct generations could be working together in one company. This challenge can cause some friction in communication, feedback, management, dress code, and workplace advancement. To face this challenge, Pam focuses on what we can learn about people by understanding their generation.
For the purpose of this lecture Pam has broken down the generational group in the following order:



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Labelled in the diagram, is each time-period for the different generation, as well as star markers that represent major world events that occurred in that time-period. Understanding the world events that shaped each distinct generation, can provide insight into their

perception and work attitude/behaviour. Listed below are some common shared experiences within each generation, and personality and workplace traits that are common between them.

Generation	Major Life Events	Common Believes and Desires
Traditionalist	- End of Great Depression - WWII - Strict Education - Large government involvement	- Hierarchy - Formal and conservative - Grateful for work - Keep life and work separate.
Boomers	- Parents served in WWII. - Nuclear family - School focused on teamwork	- Focus on teamwork and committees. - Financial success - Created and embodies "workaholic"
Gen X	- Workaholic parents, dual income homes - Low support of government - Economic war of 1970s and 1980s	- Independent workers - skeptical and practical - prefer entrepreneurial leadership. - most known for demanding work/life balance.
Millennials	- Children of divorce - Most over scheduled generation groomed for success. - Terrorism	- Feedback seekers and achievers - Value clarity and transparency - Desire work/life integration
Gen z	Not Enough Information Available	- Value flexibility - Attitudes towards work is a life experience. - Expect work/life integration. - Transparency in growth - Social awareness - Mentorship and peer coaching

Finally, understanding the major events in a person's life and common behaviours/believes they share with their generation, helps us understand their goals and needs for their personal and professional life. To conclude this discussion, Pam offers some advice on the next steps we should take to better understand each other. Firstly, we need to understand that "Your way is not the right way", we must be open and capable of adapting to multiple scenarios. Changes that we can make include:

1. Getting to know one another.
2. Learning what motivates others.
3. Learning what their preferred communication style is.
4. Learning their preferred leadership style.

Summary of February 1st Webinar by:

Andy Valencia

Electronic Communications and Gazette Committee

WOMEN IN ASHRAE

Helen Innes Donnelly - 1892 - 1935

Helen R. Innis

Helen R. Innis, an ASHVE member [1]

Helen Innes Donnelly, known as Mrs. Donnelly, was one of the first women who were involved in heating and ventilation engineering. She was born on June 3, 1892 in the Brooklyn area of New York City, USA. Helen Donnelly began her involvement with ASHVE as a Junior Member in 1918 and as a Grade Member in 1921. Once proving her prominence as a heating engineer in 1918, she was named an Associate Member (a full membership) with the American Society of Heating and Ventilating Engineers ASHVE, in 1923. [1]

One of her major accomplishments was directing the laying out of heating systems required for vacuum or vapor systems installation in residences and industrial plants as well as Skyscrapers. [1] It was published in the ASHVE journal as "Re-Modeling of a Heating System" [2]. She also spent countless hours compiling tables for gravity systems, capacities in radiation, comparative carrying capacities of pipe, etc. Helen Herbert Foster describes a few other contributions of Helen Donnelly in her article, such as the scientific ventilation of tunnels and buildings, and the designing of power plants, notably. [1]

Furthermore, she was also put in charge of difficult construction work of various kinds. One of the biggest jobs she was involved in was the printing crafts build up on Eighth Avenue. It was a twenty-five storey building where she personally inspected the heating system from cellar to roof. Author Helen Herbert also describes the nature of Mrs. Donnelly's work, which revolved around supervision and inspection, however, at times she also crawled into tough

places to thread a pipe or get to an unreachable point. Mrs. Donnelly left this world on January 29th, 1935, in Orlando, FL, where she spent her last days of life. [1]

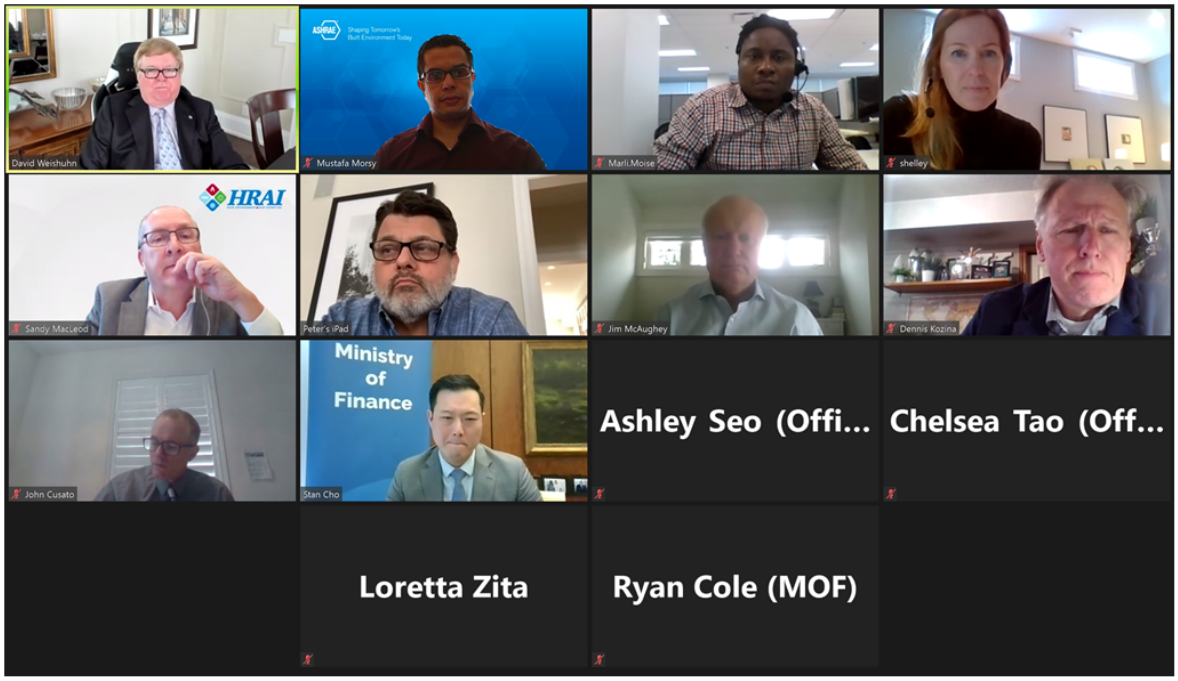
References:
[1] Women in Engineering summary by Pamela M. Immekus, Atlanta Chapter ASHRAE. Shared by ASHRAE Austin, TX chapter. The Brooklyn Daily Eagle (Brooklyn, New York) · Sun, Dec 5, 1926.
https://austinashrae.weebly.com/uploads/6/0/2/2/60227139/201612_newsletter.pdf
[2] *Re-Modeling of a Heating System, by Helen R. Innis (Vol. 25--1919). ASHVE Index Transactions (1895-1929)

Azadeh Ghadimi

Chair Diversity in ASHRAE

SUMMARY OF GOVERNMENT AFFAIRS COMMITTEE EVENT - FEB 2, 2021

On Feb 2nd, ASHRAE Government Affairs Committee members from five Ontario ASHRAE chapters participated in collaboration with HRAI and ORAC, in several virtual meetings with various government MPP's and Parliamentary Assistants. The discussions focused on IAQ, COVID-19, Building Retrofit Programs, Building EQ , Building Readiness, and Skilled Labour, among other things.



John Cusato

Chair Government Affairs Committee, ASHRAE Toronto Chapter

LAST CHANCE !!!! TO SIGN UP FOR UPCOMING PANEL EVENT ON MARCH 8

MARCH 08, 2021

6:00 PM - 8:00 PM ONLINE WEBINAR

TORONTOASHRAE.COM

Climbing the corporate ladder has always been an employee's desire, however, facing the unknown challenges might seem intimidating. One possible solution can be listening to the expert's success and failure stories to enlighten the path and reduce the doubts. In conjunction with International Women's Day, Diversity in ASHRAE Committee, will have a panel discussion consisting of 4 successful individuals in different market segments including leaders from Energy Management and Research, Sustainability and Policy Development, Engineering Consultants and, Sales. They will share their expertise on how they climbed their ladders. This panel will be an open format where the moderator guides a discussion through important questions. Some of these questions will include their success stories, barriers, inspirations, and recommendations. Before the panel, attendees will also be able to submit questions, and some will be included in the discussion. In addition, the panel will conclude with a Q&A period where attendees can ask live questions.

LAST CHANCE TO REGISTER - HERE!

Registration within 24 hours of the event start time cannot be guaranteed due to technical reasons.

Azadeh Ghadimi

Chair Diversity in ASHRAE

The conference features several case studies, demonstrating successful applications in:

- AR on Engineering Drawings
- VR for Engineering Design Decisions
- BIM Technology in an Underground Metro Station in India
- Complete Central Utility Plant Design through a DFMA Approach
- Going Digital and Digital Twins
- Automating Pressure Cascade Calculations with Dynamo
- and others

Technical Program Available....

REGISTER NOW

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We want to hear from all members of the industry and are excited to share HVAC/building system news and current chapter events.

Have some thoughts on social media content? Email: Eshan Patil