



Our 101st year! February Newsletter

February 28 , 2023- Vol 70, Issue 4

Back in Action: In-person Connections



Badri Patel BEAP, LEED AP BD+C, WELL AP

As ASHRAE Toronto Chapter Secretary, I am feeling charged and ready for what 2023 has in store for our organization and industry! The AHR Expo is one of the most significant events in the HVAC industry, and this year's event in Atlanta was a resounding success. With over forty thousand attendees, the event witnessed a significant increase in attendance compared to the previous year's event in Las Vegas, which had around thirty thousand attendees.

This boost of energy has also been reflected in our chapter events, as we saw an increase in registration for our February Dinner Meeting with BOMA Toronto on 'Planning for Rapid Net- Zero Carbon Commitment Commercial Real Estate'. After a challenging period during the COVID-19 pandemic, it is wonderful to see more and more members and guests coming together in person to connect, network, and share their knowledge and expertise. The theme of decarbonization was prominent at the 2023 ASHRAE Winter Conference and AHR Expo. I am excited to announce that our ASHRAE

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Learning Institute (ALI) courses continue to receive positive feedback. On February 23rd, we offered an ALI course on the 'Fundamentals of Decarbonization Design Systems and Equipment Applications', which provided the opportunity to earn Professional Development Hours (PDHs). March 2nd is the date of our first social event of the year; let's strike up some fun at our YEA Bowling Night!

ASHRAE has a strong global presence, with over fifty thousand members worldwide. Toronto has one of the largest chapters with over one thousand Area Assigned Members among the one hundred ninety-plus global chapters. I am indeed honoured to be associated with this diverse and inclusive chapter and I thank you for your continued support of our organization.

Badri Patel BEAP, LEED AP BD+C, WELL AP
Secretary, ASHRAE Toronto Chapter

ASHRAE TORONTO YEA + SA BOWLING NIGHT

02 Mar 2023 7:00 PM - 9:00 PM

Playtime Bowl & Entertainment, 33 Samor Rd, North York, ON M6A 1J2

ASHRAE Toronto Chapter YEA is pleased to host this night of bowling and socializing with young professionals & students. Our first social event of the year! The event is open to all members and non-members so please feel free to bring a friend or coworker!

Your registration includes pizza; vegetarian options are available.



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History Committee presents

Shoulders of Giants Featuring: Dr. Valerie L. Thomas



Dr. Valerie Thomas paved the way in the gathering and analyzing of data from space. She was born on Feb 8, 1943, in Maryland, USA, and recently celebrated her 80th Birthday. As a child, she was very interested in science. Although she was not encouraged by others to pursue her interest, she went on to earn a physics degree with High Honours at Morgan State University in 1964. She was hired by NASA in 1964 as a data analyst and mathematician. Her career at NASA spanned over 30 years and was filled with many great achievements.

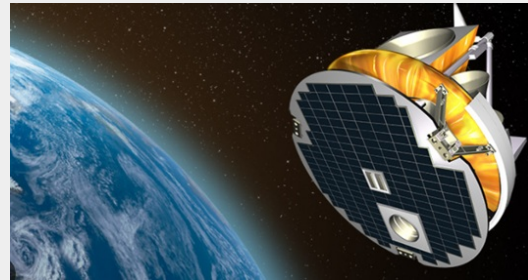
Dr. Thomas is known for helping bring satellite data and images of earth from space back to earth, having participated in the **Landsat Program** (1970-1981). She was an expert involved with **Large Area Crop Inventory Experiment** (LACIE) in 1974 which helped predict crop yields and was also involved with **ozone research**. In 1980, she received a patent for her invention the "**Illusion Transmitter**", a device still used today by NASA. Valerie was a project manager for the

Space Physics Analysis Network (SPAN) from 1986 to 1990, which involved connecting computer nodes together over a network so that scientists could easily share data, some of which helped in the evolution of today's internet. ¹

Today, others build on Dr. Thomas' work. Satellites carry scientific instrumentation for measuring among other things trace greenhouse gases in the atmosphere. Nasa's Aqua Satellite carries an instrument referred to as AIRS, (Atmospheric Infrared Sounder), which makes use of advanced infrared technology.² Orbiting Carbon Observatory-2, launched in July 2014, provides important data and accurately measures carbon dioxide in our atmosphere. ³



Artist's rendition of Orbiting Carbon Observatory (OCO) ³



Artist's rendition of SCISAT ⁴

The Canadian Space Agency's environmental science satellite SCISAT was launched on August 13, 2003, and remains operational. This Satellite can measure over sixty atmospheric trace gases including ozone and nitrogen dioxide. ⁴ Together with aircraft, using LIDAR and RADAR technologies, satellites can also help produce highly detailed and multidimensional images of our cities to help with urban planning.

Dr. Valerie Thomas is a brilliant scientist upon whose work many important tools have been developed. Among many other things, detailed satellite imagery has allowed humanity to track crop yields, pollution, atmospheric trace gases, and wildfires. As time goes on, information gathered from satellites is becoming more and more important for decision-making with respect to Climate Change.

John Cusato, History Committee Chair

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1. Wikipedia. 2023. "Valerie Thomas." Wikimedia Foundation. last edited on 13 Feb 2023, at 19:24 (UTC). https://en.wikipedia.org/wiki/Valerie_Thomas
2. Jet Propulsion Laboratory, California Institute of Technology (accessed 19 Feb 2023), *AIRS Atmospheric Infrared Sounder*, <https://airs.jpl.nasa.gov/>
3. Wikipedia. 2023. "Orbiting Carbon Observatory." Wikimedia Foundation. last edited on 4 October 2022, at 20:42 (UTC). https://en.wikipedia.org/wiki/Orbiting_Carbon_Observatory
4. Government of Canada (accessed 19 Feb 2023), *About SCISAT / Canadian Space Agency*, <https://www.asc-csa.gc.ca/eng/satellites/scisat/>

CIBSE ASHRAE Technical Symposium

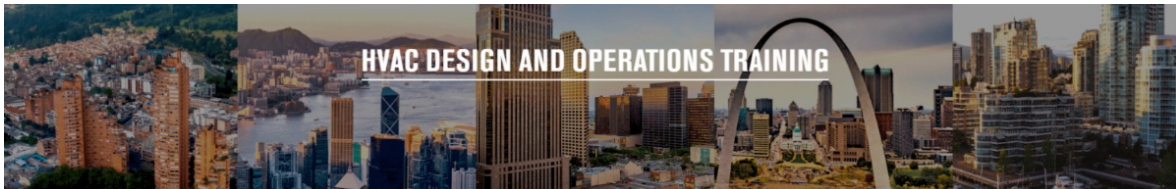
2023 Theme: Delivering Sustainable, Safe & Healthy Buildings for a net zero future

Taking place at the University of Strathclyde, Glasgow on 20-21 April 2023, the 2023 Technical Symposium, supported by ASHRAE, will present a range of peer-reviewed papers and presentations outlining the latest developments in practice, technology and policy and showcase the latest guidance for building services engineers. It will provide practitioners with up-to-date information about the latest developments in meeting the net zero carbon imperatives and also on the latest building safety related reforms in the UK industry.



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Toronto, ON: HVAC Design Level I & II Courses



12 – 14 Jun 2023

HVAC Design: Level I - Essentials

8:00 am – 5:00 pm EDT

15 - 16 Jun 2023

HVAC Design: Level II - Applications

8:00 am – 5:00 pm EDT

HVAC Design: Level I – Essentials provides intensive, practical training ideal for recent technical or engineering school graduates, engineers new to the HVAC field, those who need a refresher in new technologies, and facility managers, sales representatives and others who want to gain a better understanding of HVAC fundamentals, equipment and systems.

HVAC Design Level II – Applications provides instruction in HVAC system design for experienced HVAC engineers and those who have completed the HVAC Design: Level I – Essentials. The training covers the technical aspects of design and allows participants an opportunity to expand their exposure to HVAC systems applications to increase energy savings and improve indoor environmental quality.

[REGISTER HERE!](#)

Debate: Plastic vs Metal Hydronics Piping Systems

Monday, March 6, 2023

6:00 PM to 7:00 PM - Networking

7:00 PM to 9:00 PM - Dinner and The Debate

[Novotel Toronto North York - 3 Park Home Ave, North York M2N 6L3](#)

Professionals in the industry are often challenged with multiple hydronic solutions whether it is a new construction or retrofit opportunity with ever-growing buildings stock, to meet climate goals. Our experienced and diverse group of panellists will debate what the optimal piping material is for hydronic systems. The debate will touch on a multitude of topics and applications. So which will it be, Metal or Plastic?

[CLICK HERE FOR MORE INFO](#)

