

Our 101<sup>st</sup> year! June Newsletter

June 30 2023- Vol 70, Issue 7

### Meet Your New 2023 - 2024 Toronto Chapter Officers



John Cusato ASHRAE Toronto Chapter Nominating Committee Chair and Chapter Historian

As Nominating Committee Chair, it was my honour to perform the installation of your chapter officers for 2023 -2024. The Toronto Chapter of ASHRAE is a chapter of a distinguished engineering society. It is important to remember that ASHRAE is an engineering technical society, organized to advance the arts and sciences of the engineering of heating, ventilating, airconditioning, and refrigerating to serve humanity and to promote a sustainable world. Let us remember the founding principles of our society and assist those individuals charged to give us leadership in the year ahead. The accomplishment of ASHRAE's objectives requires the devoted efforts of thousands of members who contribute time and talent to the activities of the society.

## The Executive

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Beatriz Salazar President



Alekhya Kaianathbhatta

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**President Elect Beatriz Salazar** Smith + Andersen

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Past President Abhi Khurana Voyager Buildings

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# The Board of Governors



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Abhishek Khurana



Mike Genin



Anne-Marie Bundgard

**Dragos Paraschiv** 



Niss Feiner



Kajen Singham

Azadeh Ghadimi

Peter Turk

The new members of the Board of Governors of the ASHRAE Toronto Chapter, because of their demonstrated interest and activity in Society affairs, were elected by their fellow members to represent them. It will be the new board members' responsibilites to meet, and to deliberate and act on all matters that come before it. Since the Board of Governors is the governing body of this Chapter, it is an honour and a privilege to serve on it and it is my pleasure to welcome them to this activity of the Society, and to install them as the officers and members of the Board of Governors of the Chapter of ASHRAE. These are your chapter officers, and they need and

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# A Brief History of the McLennan Physical Laboratories building – University of Toronto

On May 27th and 28th, 2023, the City of Toronto held a "Doors Open" event, for which approximately one hundred and fifty buildings were open to the public. One such facility was the University of Toronto's McLennan Physical Laboratories, located at 255 Huron Street. The main floor of the McLennan Physical Laboratories building had many interesting science demonstrations set up, with physics students providing explanations for each of the exhibits.

A quick walk across a lobby area led to the Burton Tower, a fourteen-story building that has telescopes on the top floors. The fourteenth floor has a terrace, which provides a nice view of Toronto. On May 28th, the telescopes were providing images of the sun and of Jupiter.

The McLennan Physical Laboratories building, which includes the Burton Tower was completed in 1967. There was a desire to have a high rise at the university for prestige, and to place the telescopes far above the nearby heating plant exhaust stack. A building with easier access for occupants to move from place to place was asked for, and one with not more than five floors, but was denied in favour of the fourteen-story building. The heating plant was later rebuilt, with a taller stack, one that was higher than the Burton Tower. The stack did at times interfere with telescope operation. The building also included a Linear Accelerator (Linac), which was later moved to another location. 3



McLennan Physical Laboratories building with the Burton Tower in the background.

Looking into the history of the buildings leads to many interesting facts, mostly about the people who occupied them. Both Sir John C. McLennan and Eli Franklin Burton, whom the building and tower are named after, had outstanding careers, both serving in different eras as Head of the Physical Department at the University of Toronto. Experimental Research projects at the University of Toronto, have led to enormous advances in science, with many discoveries, and theories confirmed. Among his many accomplishments, McLennan discovered the cosmic ray and pioneered the use of radium to treat cancer. He also built a helium liquefier at the University of Toronto in 1923. 5 In the 1930s, Burton built the first practical **electron microscope** at the University of Toronto with the help of students. 6



The Central Steam Plant across the street from the Burton Tower

The original physics building was at 10 Kings College Road and opened in 1907, the year that Sir John C McLennan became head of the department. That location became the Sandford Fleming building, which eventually had to be rebuilt due to a fire in 1977. 2 The rebuilt facility now serves as The Faculty of Applied Science and Engineering building.



Aerial view (from Google Maps). The McLennan Physical Laboratories building. Note the two domes of the telescopes on top of the Burton Tower, the terrace on the 14th floor, and the Stack across the street at the Central Steam Plant.

Further back in time, in 1843, Kings College (founded in 1827) is where Natural Philosophy was first taught by professors, Natural Philosophers, such as Isaac Newton, are philosophers who study nature and what is now physics. Kings College was to become the University of Toronto in 1850. 2



King's College

The References below go into much more detail about the incredible history of the University of Toronto Physics Department, the staff, students, and the buildings.

John Cusato, Chapter Historian, ASHRAE Toronto Chapter

### References:

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3) Morris, Stephen. [*UT Physics*] ( (2017, June 3rd). "50th anniversary of the McLennan Physical Labs." Talk by Stephen Morris with Alumni comments [Video file]. *YouTube.* 

4) (2023) "Alumni of Influence: John Cunningham McLennan." *University College, University of Toronto.* <u>https://www.uc.utoronto.ca/alumni-influence/john-cunningham-mclennan</u>

5, (2023) "John Cunningham McLennan." *Wikimedia Foundation.* Last modified 21 March 2023 <u>https://en.wikipedia.org/wiki/John\_Cunningham\_McLennan</u>

# TORONTO ASHRAE 2023 GOLF AND CYCLING DAY

### Monday, September 25, 2023 Nobleton Lakes Golf Club 9:30 AM - 8:00 PM

125 Nobleton Lakes Dr, Schomberg

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