



2023 ASHRAE WINTER CONFERENCE

STUDENT PROGRAM



#myashrae

Find more information visit ashrae.org/2022winter

Saturday, February 4th

1:00 PM – 3:00 PM | STUDENT WELCOME

Omni CNN Center Atlanta, International EF (M2-North)

Hear welcoming remarks from ASHRAE President Farooq Mehboob followed by an awards ceremony and keynote presentation. Come learn about the design of the Kendeda Building for Innovation Sustainable Design from Greg Spiro and Shan Arora.



Greg Spiro is a licensed engineer, LEED AP and CEM with nearly 30 years of mechanical systems experience. Greg is currently Georgia Tech's Senior Mechanical Engineer in Infrastructure and Sustainability's Design and Construction department where he has served for the past 23 years. In that time, Greg has worked on a wide variety of projects including mechanical building systems, state of the art research laboratories, central plant, and underground chilled water & steam utilities. Greg has served as a member of the ASHRAE BACnet committee.



Shan Arora is the Director of The Kendeda Building for Innovative Sustainable Design, a multi-disciplinary, non-departmental education building at Georgia Tech. It is the first building in Georgia to earn Living Building Challenge certification – the world's most ambitious and holistic green building achievement. Rather than being less bad for the environment, The Kendeda Building fosters regenerative and restorative relationships amongst humans and nature where people give back more to the environment than they take.

Shan's role is to promote the building, and regenerative building ethos, as a way to create a better built environment. To advance this mission, Shan relies on his experience in renewable and clean energy advocacy, as well as his understanding of regional politics, business development, sustainability, and tax policy. Prior to this role, he was at Southface Institute for 8 years, and prior to that, Deloitte Tax. Shan obtained BA and JD degrees from Emory University and has received Living Future Accreditation.

Shan also serves on the Board of Directors of Georgia Interfaith Power & Light, a nonprofit that engages communities of faith in stewardship of Creation as a religious response to climate change, resource depletion, environmental injustice, and pollution.

3:15 – 5:30 PM | PLENARY SESSION

Omni CNN Center Atlanta, Grand Ballroom D2/E (M4-North)

The Plenary will feature a keynote from Peter Leyden, a leading expert on new technologies and future trends. The Plenary Session also features presentations from the Honors and Awards programs, including the First Place winners of the Student Design Competition.

5:00 – 6:30 PM | YEA/TC MIXER

Omni CNN Center Atlanta, International EF (M2-North)

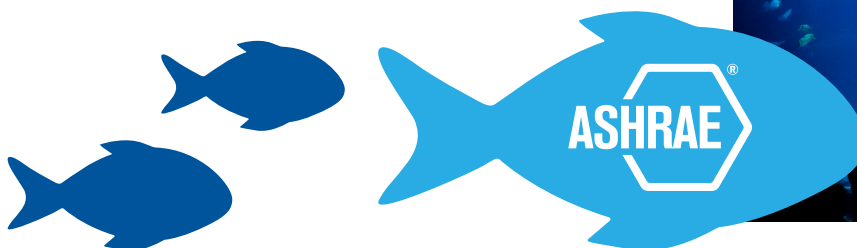
Learn more about ASHRAE Grassroots Committees and mix and mingle with (YEA) Young Engineers in ASHARE members while competing in a poker run activity. Prizes will be available along with free food & drinks.

6:30 – 8:30 PM | WELCOME PARTY

Oceans Ballroom at Georgia Aquarium

(\$65 ticket, Aquarium Access Upgrade \$90)

Students are encouraged to attend



Sunday, February 5th

8:00 AM – 3:30 PM | STUDENT PROGRAM

Omni CNN Center Atlanta, International EF (M2-North)

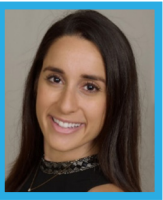
8:00 – 8:45 AM

Technical Talk #1: Basics of Building Control System Engineering

Presented by TC1.4's Jim Coogan and Michelle Shadpour



Jim Coogan, P.E., is a Principal in product development at Siemens Smart Infrastructure. In 40 years designing controls for mechanical systems, he has contributed to products ranging from room controllers to Internet-based interfaces. Jim has chaired several ASHRAE committees. Publications include technical papers on room pressurization and laboratory ventilation. Jim earned his SB in mechanical engineering at MIT.



Michelle Shadpour is a Senior Design Engineer at SC Engineers with over six years of engineering experience spanning a variety of project types primarily in the pharmaceutical and healthcare sectors. A graduate of the University of Southern California's Viterbi School of Engineering, Michelle's expertise includes engineering assessments, design, construction, and project management. Michelle has been recognized industry wide as one of the leading engineers of the future being named DiscoverE's "2017 New Face of Engineering", Plumbing Engineers 2018 "Top 10 in Their 20s", and Engineered Systems' 2020 "20 to Watch: Women in HVAC". As the chair of the ASHRAE TC 1.4 YEA committee, she has extensive expertise in building automation systems and the sequence of operation for HVAC systems for high-tech facilities. Michelle also serves as the Vice President of ASHRAE San Diego Chapter.

9:00 – 9:45 AM

Technical Talk #2: Basics of Load and Ventilation Calculations

Presented by Don Brandt



Donald Brandt, Fellow/Life Member ASHRAE, CEM, has devoted his career to the HVAC industry. During his decades-long tenure with the Trane Company, he has been active in ASHRAE, serving at the Chapter, Regional and Society Levels, including DRC for Region X from 2002–2005, Standards Committee from 2005–2009, and Nominating Committee from 2010–2016. He received the ASHRAE Distinguished Service Award in 2005 and the Exceptional Service Award in 2015. He has served as an ASHRAE Director-at-Large and is currently a Society Vice-President.

10:00 – 11:00 AM

Career Panel:



Learn about what jobs may await with a career related to ASHRAE! This is an open forum for you to ask questions to professionals spanning multiple industry sectors. Q&A Session with Donald Garipey, Natalie MacDonald, Tracy McKeon.

11:15am – 12:15 PM **K-12/STEM Group Activity**

12:30 – 1:15 PM **Lunch**

1:30 – 3:30 PM

Poster session with winners of the Design Competition and recipients of ASHRAE's Undergraduate Program Equipment Grants.

Monday, February 6th

10:00 AM – 12:00 PM | STUDENT ROUNDTABLE

Georgia World Congress Center, A309 (3)

Student branch officers are selected to participate in this two-hour session to provide ASHRAE leaders with feedback and guidance on student activities.

10:00 AM – 12:00 PM | STUDENT BRANCH ADVISOR (SBA) ROUNDTABLE

Georgia World Congress Center, A307 (3)

Student Branch Advisors are invited to discuss student activities with Regional Student Activities Chairs.

12:00–3:00 PM | AHR EXPO TOUR

Location: Georgia World Congress Center, C105 (1)

Lunch with Manufacturers! Come have lunch with some manufacturers from the AHR Show and learn about their work, followed by a guided tour of the tradeshow floor. This event is put on by the ASHRAE Student Activities Committee and AHR.

RECOMMENDED TECHNICAL SESSIONS

Sunday February 5

8:00 AM – 9:00 AM

Seminar 4: It's Elementary! (Or is it?): Challenges and Opportunities for Radiant Heating and Cooling Systems in Educational Facilities (Basic)

Seminar 1: Air Evaporator Basics: What You Must Know for an Efficient Design (Basic)

Seminar 3: Cutting-Edge Japanese Technologies on Grid Resilience and Thermal Storage: SHASE Annual Award Winners (Intermediate)

Monday February 6

8:30 AM – 9:30 AM

Seminar 26: Human Metabolic and CO2 Generation Rates (Basic)

9:45 AM – 10:45 AM

Seminar 28: Back to Basics with Hydronics: The OG of HVAC Systems (Basic)

11:00 AM – 12:00 PM

Forum 1: ASHRAE Cultural Mixer

Paper Session 14: Thermal Comfort and IAQ in the Classroom

Seminar 36: The Interaction of Indoor Environmental Quality Variables in Schools: Health and Performance Impacts (Intermediate)

Tuesday February 7

8:00 AM – 9:00 AM

Seminar 38: Employing 3D Printers for Swift and Adaptable Additive Manufacture of HVAC&R Components (Basic)

AHR Expo Session 1: Low GWP Refrigerant Advancements for Decarbonization Part 1 (Intermediate)