

TC 2.3 Program Subcommittee Meeting – Houston

Tuesday, 26-June-2018, 12-12:45p
382C (GRBCC)

Conference Paper Due July 9, 2018 for Kansas City
Seminar, Forum, Workshop, Debate and Panel Proposals Due August 3, 2018, Presentation uploads by Jan. 4, 2019.

Student Authors Recognized at 2018 Annual Conference: Certificates were awarded to students at their assigned conference paper session. Certificates in the categories “Best Paper” and “Honorable Mention” were presented to graduate candidates and PhD candidates.

Atlanta, Jan 12-16, 2019, www.ashrae/atlanta, Kansas City, June 22-26, 2019, www.ashrae.org/kansascity,
Orlando, FL, Feb. 1-5, 2020, Austin TX, June 27-July 1, 2020, Chicago, IL, Jan 23-27, 2021, Phoenix, AZ, June 26-30

Program statistics for Houston: Seminar: 72/100, Workshop: 7/9, Panel: 1(withdrawn)/4, Forum: 4/11, Debate: 1/2, Conference Paper:67/105, Technical Paper: 14/21

Programs for Houston:

Wed. June 27, 11:00 – 12:30 Forum 4, 370CF (3) GRBCC

2.9	Forum	Gauging current interest in forming an MTG (Multi Task Group) to combine all available air cleaning technologies with the goal of establishing a test method and / or standard to validate the contribution of each technology when combined	Fundamentals and Applications	2.3	2.4	Sam Guzman
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Mon. June 25, 8:00 a.m. – 9:30 a.m. Conference Paper Session 4 (Intermediate) **Filtration for Improved Air Quality** Track: HVAC&R Systems and Equipment
Room: 371CF, (3), GRBCC Chair: John Dunlap, P.E., Dunlap & Partners, Richmond, VA

1. Comparison of Air Resistance Between Electrospun Nanofiber Filters and Conventional Filters (HO-18-C010) Chun Chen, Ph.D., Associate Member, Tongling Xia, Student Member, The Chinese University of Hong Kong, Hong Kong
2. Particulate Matter Emission Rates from Common Scent Sources (HO-18-C011) Ernesto Diaz Lozano Patino, Alireza Mahdavi, Student Member, Jeffrey Siegel, Ph.D., University of Toronto, ON, Canada
3. In-Situ Integrated Filter Efficiency Measurement (HO-18-C012) Masih Alavy, Student Member, Alireza Mahdavi, Student Member, Jeffrey Siegel, Ph.D., Tianyuan Li, Student Member, Fellow ASHRAE, University of Toronto, Toronto, ON, Canada
4. Evaluation of Low-Cost Particulate Matter (PM) Sensors: A Preliminary Investigation (HO-18-C013) Defeng Qian, Student Member, Zheng O’Neill, Ph.D., P.E., Zhihong Pang, Student Member, University of Alabama, Tuscaloosa, AL

	Session	Title	Co-sponsor	Champion	Location	Was held/Due
1	Seminar	Don't Gamble with IAQ: Guidance on Estimating and Monitoring the Performance of Gas-Phase Air Filters		Chris Muller		Not Scheduled
2	TC2.9 Forum	Do we need a test method & standard to evaluate the Combination of air cleaning technologies.	TC2.3	Ashish	Houston	Scheduled
3	Seminar	Room air cleaner, Can it improve IAQ?	TC2.4	KJ	Atlanta	
4	SSPC62.1-sponsoring Workshop	Misapplication of IAQ Procedure (Hoy, Marwa and Charlene)	TC 2.3, EHC,	Erica Stewart	Kansas AND BEYOND	
5	Seminar	Sensors in filtration and IAQ – Bio	TC2.4	Krafthefer	Kansas	
6	Workshop	Occupant related indoor air pollution (Chang Seo)	TC2.4	Charlene	Kansas and beyond	
7	Seminar	Back to basics, how to choose a gas-phase filter	TRG4, 62.1, SSPC 145	Ashish	Atlanta	
8	Seminar TC2.9	Cannabis Indoors	TC2.3	Guzman	Atlanta	
9	Workshop	Review and Evaluation of Standard 145.2 Test Data		Owen	Orlando	
10	Forum	How IOT affects gas filters and air quality	Tc2.4	Matt Middlebrooks		

Attendees: Marilyn Listvan, Gemma Kerr, Dara Feddersen, Matt Middlebrooks, Kathleen Owen, Paula J. Levasseur, K. Kiantaj, Kevin Kwong, Dan Mason, Jeff Roseberry, Peter Freeman, Ashish Mathur, Scott Sherool, Nick Agopian, Chris Hsieh, Sanjeev Hingorani, Christine Sun, K-J Choi

Notes:

Technical Paper Session:

These sessions present papers on current applications or procedures, as well as papers resulting from research on fundamental concepts and basic theory. Papers presented in these session have successfully completed a rigorous peer review. Forms for written comment are available at each session, and sent to respective authors for reply and publication in ASHRAE transactions, if received by a certain date.

Conference Paper Session:

These sessions present papers on current applications or procedures, as well as papers reporting on research in process. These papers differ from technical papers in that they are shorter in length and undergo a much less stringent peer review.

Seminar:

These sessions feature presentations on subjects of current interest. There are not papers attached to seminars.

Workshop:

These sessions enable technical committees and other ASHRAE committees to provide a series of short presentations on a topic requiring specific expertise. These short presentations are provided with an increased emphasis on audience participation and training in a specific set of skills. There are not papers attached to workshops.

Forum:

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The sessions are “off-the-record” discussions held to promote a free exchange of ideas. Reporting of forums is limited to allow individuals to speak confidentially without concern of criticism. There are not papers attached to forums.

Panel Discussion:

Panel discussions can feature a broad range of subjects and explore different perspectives on industry related topics. This session format includes a panel of 3-4 speakers each addressing a facet of the session topic, followed by an interactive discussion lead by the session chair. Panel Discussions may be 60 minutes or 90 minutes in length and will be posted online in the Virtual Conference.

Debate:

Debates highlight hot-button issues commonly faced by our membership. Industry experts, either on teams or as individuals, argue opposing sides of an issue, concluding with position summaries and audience feedback. Debate sessions may be 60 minutes or 90 minutes in length and will be posted online in the Virtual Conference.

Tracks for Atlanta, GA, January 12-16, 2019.

2019 Winter Conference Chair is Corey Metzger

Track 1: Systems and Equipment

Track Chair: Joseph Farrantello

HVAC&R Systems and Equipment are constantly evolving to address the changing requirements of the built environment. Papers and programs in this track will focus on the development of new systems and equipment, improvements to existing systems and equipment, and the proper application and operation of systems and equipment.

Track 2: HVAC&R Fundamentals and Applications

Track Chair: Rick Hermans

Fundamentals are the foundation for understanding applications in engineering. Key components of ASHRAE fundamentals include thermodynamics, psychrometrics, fluid and mass flow. This track provides opportunities for papers and presentations of varying levels across a large topic base. Concepts, design elements and shared experiences for theoretical and applied concepts of HVAC&R design are included.

Track 3: Refrigeration

Track Chair: Sonya Pouncy

Refrigeration is a critical element of modern life, from preserving food and medicine to maintaining comfort. With significant changes on the horizon for refrigerant regulations, along with new applications for refrigeration systems being frequently applied, there is more need than ever to understand both the fundamental and advanced concepts and issues related to refrigeration. Papers and programs in this track will focus on refrigerants, refrigerant regulation, refrigeration cycles, and refrigeration applications.

Track 4: Construction, Operation, and Maintenance of High Performance Systems

Track Chair: Leticia De Oliveira Neves

The design of high performance buildings and systems has become an increasingly important focus of those in the construction industry. While designing high performance facilities is important, there have been numerous cases where a building with high performance design objectives have failed to achieve targeted performance. Ultimately, construction, commissioning, operation, and maintenance of facilities is critical to meeting targeted performance levels. Papers and programs in this track will focus on meeting high performance design goals through construction and operation phases of a project.

Track 5: Common System Issues and Misapplications

Track Chair: Lee Riback

With the number of possible system and equipment options and combinations available, along with increasingly capable and complex automation systems, it is no surprise that issues are frequently encountered with HVAC&R systems. While some of these issues may be unique, many have been experienced previously. Papers and programs in this track will focus on issues or misapplications that are frequently observed, and opportunities to avoid these issues in the future.

Track 6: 207.2 (55+62.1+90.1): The Convergence of Comfort, Indoor Air Quality, and Energy Efficiency

Track Chair: Ashish Rakheja

With the importance placed on optimizing comfort, indoor air quality, and energy efficiency, there are often trade-offs that must be made. Improvements in one of these areas may necessitate compromise in others. Additionally, there are numerous other codes and standards that create similar challenges in optimizing systems. Papers and programs in this track will focus on strategies to limit required compromises, and on finding the best set of design criteria for each building or system.

Track 7: Building Integrated Renewables and Natural Systems

Track Chair: Maggie Moninski

As the movement toward more sustainable buildings and net-zero buildings continues to grow, the inclusion of building integrated renewable energy systems paired with other natural systems will become increasingly common. At the same time, advances are being made with respect to integrating renewable energy systems into the built environment. Papers and programs in this track will focus on advancements in building integrated renewable systems, application of building integrated renewable systems, and the use of renewable and natural systems in the move toward net-zero buildings.

Track 8: The Engineer's Role in Architecture

Track Chair: Ashu Gupta

As the built environment becomes more complex, the role of the engineer in developing high performance facilities is increasingly important. With significant attention being paid to integrated teams and early involvement by all team members, what is being done well, and what can be done better? Papers and programs in this track will focus on improving the design and construction process by defining the roles to be played by engineers moving forward.

Winter Conference Atlanta, GA January 12-16, 2018

Conference Program Chair: Corey Metzger