



ASHRAE Technical Committee 1.4

Full Committee Meeting Agenda

TC 1.4 Control Theory and Application

<http://tc0104.ashraetcs.org/>

Tuesday, January 23, 2024 1:00 – 3:30 pm CST Hybrid Conference

“Commitment to the ASHRAE Code of Ethics – In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, integrity and respect for others, and we shall avoid all real or perceived conflicts of interests. (See full Code of Ethics: <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>.)”

1) Call to Order

2) TC 1.4 Scope

- a) ASHRAE Technical Committee 1.4 is concerned with control theory, systems, and components (excluding refrigerant flow controls) for heating, ventilating, air conditioning, and refrigeration uses.

3) Introduce Members, Guests, and Liaisons

- a) General Introductions – In person and virtual
- b) Determination of a quorum

VOTING MEMBERS FOR THIS MEETING (Need (5) or ½+1 for a Quorum)

| NAME | Roll-Off-Date | |
|-------------------|---------------|---|
| Jayson Bursill | 6/30/27 | x |
| JoeDon Breda | 6/30/27 | x |
| Taraneh Shoorideh | 6/30/27 | x |
| Charlotte Dean | 6/30/26 | x |

| NAME | Roll-Off-Date | |
|-----------------|---------------|---|
| Chariti Young | 6/30/26 | |
| Elise Backstrom | 6/30/25 | x |
| Joe Kilcoyne | 6/30/25 | x |
| Paul Ehrlich | 6/30/25 | x |

4) Voting Items

- a) Approval of minutes from 2023 Annual Meeting.

Paul Ehrlich motions, Joseph Kilcoyne seconds. 6-0-0, chair not voting.

- b) Vote to approve WS-1927.

Motion not required. 6-0-0, chair not voting.

5) Chair's Report

- a) Announcements and Highlights from TC Chairs Breakfast Meeting

6) Announcements

- a) **TAC – Technical Activities Committee – Section Head Jason Atkisson**

- i) Upcoming conferences

- June 22-26, 2024 – Indianapolis, IN
- Feb. 8-12, 2025 – Orlando, FL
- June 21-25, 2025 – Phoenix, AZ
- Jan. 31-Feb. 4, 2026 – Las Vegas, NV

- ii) 3 FG's formed since Annual Meeting

- (1) TG 9.13.SPACE
- (2) MTG.BEQ
- (3) MTG.GAI

- iii) 2024-2025 High Award Nominations due by Friday, September 6th.

- iv) Roster updates happen after this meeting, but go in to effect after Indianapolis meeting. Provisional Corresponding Members roll off automatically after 2 years, email Elise to request to be upgraded to Corresponding Member.

- v) The strategic plan sunsets in 2025 so TAC in updating it. Feedback can be provided online up until 1/30/2024.

- vi) TCs are not allowed to have MOPs, any existing MOPs can be referred to as reference manuals.

- vii) There will be a new mtg on generative AI. This MTG will include members from TC 1.4, 1.5 and 1.6.

- viii) Reminder to attend the breakfasts for subcommittee chairs.

- ix) Reminder that a handbook update is due in July.

- x) If you need to contact the section head you email Sh1@ashrae.net.

- b) **RAC – Research Activities Committee – Section Head Ahmed Kashef**

- i) No update.

7) Liaison Reports – TC 1.4 Sponsored Functional Groups

- a) **SGPC 13 Specifying Building Automation Systems**

- i) Chair Todd Gottshall, Vice Chair Philip Naughton

- ii) Report by Ron Bernstein. The 2024 version is expected to be published prior to the annual conference. New sections include content on enterprise integration, cyber security, and graphics enterprise. Cyber security and operator interface is going to be incorporated into the official scope.

- b) **SGPC 36 High Performance Sequences of Operation for HVAC Systems**
 - i) Chair Joe Zhou, Vice-Chair Reece
 - ii) Report by Joe Zhou. They are currently exploring the best way to incorporate standardized FPT into the guideline. They currently have some RP on automating the associated testing. Addendums will include air pollution mode and how to use fan arrays with an economizer to not over ventilate if not required.
- c) **SPC 231P CDL – A Control Description Language for Building Environmental Control Sequences**
 - i) Chair Paul Ehrlich
 - ii) Report by Paul Ehrlich. The SPC will be posted next Friday for 45 day review period. It is the initial review and they are anticipated two review cycles this year.
- d) **SSPC 135– BACnet - A Data Communication Protocol for Building Automation and Control Networks**
 - i) Chair Coleman Brumley, Jr
 - ii) No report provided.
- e) **MTG.CYB - Cybersecurity for HVAC Systems And Related Infrastructure**
 - i) Liaison –Ron Bernstein
 - ii) No report provided.
- f) **MTG.EBO - Effective Building Operations**
 - i) Liaison –Joe Kilcoyne
 - ii) Report by Joseph Kilcoyne. The MTG includes liaisons from IFMA and BOMA. A seminar is being put together on the topic and we may be asked to provide a speaker. Other TCs involved include commissioning and building energy quotient.

8) **Sub-Committee Reports**

- a) **Executive** – Elise Backstrom | vice chair Charlotte Dean
 - i) Coordination of meetings with TC 7.5 for 2024 Annual Conference
- b) **Education/YEA** – Michelle Shadpour | vice chair Greg Tayco
 - i) The subcommittee meeting was packed. Over 15 new attendees, primarily YEA members and student members. The additional attendance was primarily due to the distributed flyers, the meeting name in the program, recommendations from active members to new conference attendees, and our participation in the student program. Michelle and Jim spoke at the student program on controls and TC 1.4. The presentation was well received with over 20 minutes of questions.

- c) **Program** – Frank Shadpour | Vice chair Ariana Axelrod
 - i) This conference included 10 programs sponsored by TC 1.4. We have 18 seminars in the pipeline for the Indianapolis and Orlando conferences.
- d) **Brainstorming - Innovative and Disruptive Technologies** – Chad Moore | vice chair Chris Benson
 - i) Report by Jayson Bursill. The conversation was dynamic and the full time period was utilized. The conversation included a chatbot. In some ways it was useful but did not provide any additional insight.
- e) **Research** –Amanda Pertzborn | vice chair Jayson Bursill
 - i) There are issues with research going out to bid but not receiving any bids. Society has began using social media to promote the research. Reminder to include milestones and past versions when submitting RTARs and work statements. RP 1865 is active and close to being completed. PMS approved a no cost extension. WS 1963 was accepted by RAC and is going out for bid this Spring. WS1966 was accepted with comments and will be converted into a work statement. New ideas came up including a DOAS as a full dehumidification system, “what are the exceptions to the rule” and researching specific sequences for cold climates for incorporation into GL36.
- f) **Handbook** - Terry Schroeder | vice chair Tara Shoorideh
 - i) The plan is to have our chapter updates completed by June so they can be voted on at the annual conference.
- g) **Standards** – Steve Taylor
 - i) 62.1 – Two addenda have been made incorporating CO2 demand control.
 - ii) 90.1 – Now references 62.1. The standard includes a ventilation minimum however, there is no maximum.
- h) **Webmaster** – Michelle Shadpour
 - i) Roster issue, website will be updated shortly once Michelle has access.

9) Committee Liaison Reports

- a) Task Force on Building Decarbonization (TFBD) – Larry Fisher
 - i) Looking for members.
- b) TC 1.5 (Emerging Computing Applications) – Mike Pouchak
 - i) RP1815 is on track and making progress.
- c) TC 2.10 HVAC Security – Kim Barker
 - i) No report.
- d) TC 7.5 (Smart Building Systems) – Joe Zhou
 - i) New RP on model predictive controls. There are currently 4 bidders.
- e) TC 9.10 (Laboratory Systems) – Jim Coogan
 - i) They are currently updating the lab design guide however it is moving slow.
- f) TC 9.11 (Clean Rooms) – Phil Naughton
 - i) No report.
- g) SSPC 62.1 (Ventilation and Acceptable IAQ) – Steve Taylor
 - i) No additional updates outside of previous discussions (see g).

- h) SSPC 90.1 (Energy Efficient Design of New Buildings) – Steve Taylor
- i) No additional updates outside of previous discussions (see g).

10) Old Business

- a) The editor of Special Publications with ASHRAE has asked whether TC 1.4 members will agree to review the ASHRAE's eLearning coursebooks FUNDAMENTALS OF HVAC CONTROL SYSTEMS and FUNDAMENTALS OF HVAC SYSTEMS in preparation for an update to their eLearning courses. Elise is working with review team to compile single TC review form.
- b) TC 1.4 Chatbot: Team brought a chatbot to participate in a TC meeting at this conference, small scale for Chicago conference. Not a "dead end" and will potentially use it in the next conference.

11) New Business

- a) Congratulations to Jin Wen for becoming a Fellow!

12) Upcoming Deadlines

- Indianapolis Annual Conference
- Seminar, Forums, Workshops, Panels and Debates proposals are due by Monday, February 26, 2024.
- The portal to submit programs opened on Friday, January 5, 2024.

13) Next Meeting – 2024 ASHRAE ANNUAL CONFERENCE| June 22-26, 2024| Indianapolis

14) Adjourn