

Event page link: <https://www.nist.gov/news-events/events/2024/08/additive-construction-path-standardization-ii>

Registration page link: <https://events.nist.gov/profile/31731>

Preliminary Schedule

Motivation: drill down on core issues in standards, codes, and design guidelines. Discussions will contribute to the development of a roadmap for standardization of printing and testing methods.

Themes:

Printing – software and hardware used in the act of printing (operational systems, safety, field vs. laboratory differences).

Testing – the evaluation of the materials, print performance, and cured elements.

Topics:

Pre-print process and quality control

In-line process and quality control

Post-print process

Curing of specimens for mechanical characterization

Field vs. laboratory

Differences in mortar, concrete, and other current forms of printing materials

Standards impact on research development, commerce, labor, safety, finance, and real estate development

Tuesday 8/20/24

07:30 – 08:00 Check-in

08:00 – 08:15 Introduction by NIST

08:15 – 08:30 NCCoE: Overview of the Center (Michael)

08:30 – 09:15 Session 1-1: Intro: Progress & Lessons learned [Shawn (ACE), Stephan (ASTM), Eric (ACI)]

09:15 – 10:30 Session 1-2: State of the Industry and Challenges it Faces (Bing)

10:30 – 10:45 Break

11:00 – 12:00 Session 1-3: Printing formats and challenges to standardization (Eric)

12:00 – 13:00 Lunch

13:00 – 13:45 1st breakout session: Hurdles to field printing – challenges between lab and field applications (Rheology, testing, curing, printing, etc.)

13:45 – 14:30 Session 1-4: Sustainability (Sean)

14:30 – 14:45 Break

14:45 – 15:30 2nd breakout session: Sustainability (questions to TBD)

15:30 – 17:00 Review and discussion from BO sessions - Closing (announce NRC

<https://www.nationalacademies.org/our-work/rap/nrc-research-associateship-programs>))

Wednesday 8/21/24

08:00 – 08:30 Welcome and review of days schedule (including NCCoE tour details)

08:30 – 09:00 Session 2-1: Safety, Equipment, work force, 3D printing procedure (Noah)

09:00 – 09:30 Session 2-2: Canadian standards development (Marcos)

09:30 – 09:45 Break

09:45 – 10:30 Session 2-3: Exploring 3D Printed Real-Estate Perspectives: Opportunities and Challenges
(Julie)

10:30 – 11:15 3rd breakout session- Standards impact on: Finance, real estate development, research development, commerce, Labor, safety.

11:15 -12:00 Closing: 2025 and beyond – Symposium date and location to be determined.

12:00 – 13:00 Lunch and Networking

13:00 – 14:30 NCCoE Tours

13:00 – 14:30 ACE Consortium Meeting (Closed, members only, Networking can continue in main room)

14:30 – 15:30 ASTM F42.07.07 Meeting 1 (All are welcome to attend)

15:30 – 15:45 Break

15:45 – 17:00 ASTM F42.07.07 Meeting 2 (Workgroups) if needed.

Call for videos of print operations (2:00 min) to be stitched together and run on loop as a display somewhere.