

Ribbon Cutting Happy Hour: Wednesday, October 18, 5-7 pm PDT

Please join us for drinks, networking and a ribbon cutting ceremony for CBE's recently renovated controlled environmental test chamber: 390 Wurster Hall, UC Berkeley

Open to Industry Partners and Invited Guests. Drinks and appetizers will be served.

Plenary Session: Thursday, October 19, 8:15 am-4:45 pm PDT

Pauley Ballroom East, UC Berkeley at 2495 Bancroft Way [\[Hybrid sessions also via Zoom\]](#)

Open to Industry Partners, Invited Research Affiliates and Guests

8:15 am Registration and Breakfast

9:00 am Morning Session 1: New Capabilities and Directions [\[begin Hybrid webinar\]](#)

9:00 am Welcome and Participant Introductions



9:20 am Renovation and New Capabilities in CBE's Controlled Environmental Chamber

Charlie Huizenga, Research Specialist

Past milestones and exciting future prospects for this recently overhauled facility that plays a key role in CBE's research on indoor environments.



9:45 am The Oakland EcoBlock

Therese Pepper, Assoc. Director, California Institute for Energy and Environment

This prototype for urban block-scale retrofitting is intended to increase resilience and the rapid, equitable and affordable reduction of greenhouse gas emissions.



10:10 am Net-Zero Carbon and the Role of Carbon Offsets

Matt Roberts, Postdoctoral Researcher

Overview of what carbon offsets are, how they are measured, and their role within the drive to reach a net-zero classification for buildings.

10:35 am Networking Break (20 min.)

10:55 am Morning Session 2: HVAC and Data Analytics [\[Hybrid\]](#)



11:00 am New Insights on Heating Hot Water Systems in Large Commercial Buildings

Paul Raftery, Professional Researcher

Detailed analyses of load distribution and boiler performance data from hundreds of buildings offer valuable implications for design practice.



11:25 am A Novel Measurement and Verification Framework for Testing HVAC Control Alternatives

Aoyu Zou, PhD Student in Building Science, Technology and Sustainability

We obtained faster and more accurate results than traditional M&V methods using a 'switchback' experimental design.



11:45 am A Method to Identify Buildings for Retrofit Opportunities to Reduce High VAV Minimum Airflow Rates

Marya Kemp, MS Student in Building Science, Technology and Sustainability

We tested a screening method using basic building information and monthly gas use, for the purpose of rolling out a verified and low-cost energy-saving strategy.

12:00 pm Lunch

1:00 pm Keynote and New Partner Presentations [Hybrid]



1:00 pm Forming Feeling: Experiential Design Strategies

Gail Brager, CBE Associate Director and Professor of Architecture

Gail will present key strategies from her [new book](#) provided to help designers create rich multisensory experiences in buildings, connecting people to nature, and embracing the value of environmental variability.

1:40 pm New Partner Presentations: ClimateWorks Foundation, Midea, Sulion

1:55 pm Networking Break (20 min.)

2:15 pm Afternoon Session: Health and Indoor Environments [Hybrid]



2:15 pm A New Berkeley Infectious Aerosols Tool for ASHRAE Standard 241 Compliance

Chai Yoon Um, PhD Student in Building Science, Technology and Sustainability

We will discuss recently adopted ASHRAE 241, our involvement in its development, and demonstrate our reimagined CBE tool offering guidance on managing infectious aerosols.



2:40 pm Integration of the Advanced Berkeley Comfort Model with an Open-Source Thermal Physiology Model

Akihisa Nomoto, Postdoctoral Researcher

We will present new software for assessing human heat stress and thermal comfort in non-uniform and transient environments.



3:00 pm Effect of Elevated Air Movement on Radiant and Ceiling Fan Coupled Systems

Carlos Duarte, Assistant Professional Researcher

We found promising results with elevated air movement on the steady-state cooling capacity of radiant heating and cooling systems.



3:20 pm Energy Savings and Thermal Comfort in a Zero-Energy Office Building Retrofitted with Fans

Stefano Schiavon, Prof. of Architecture and Civil & Environmental Engineering
We found 32% mechanical system energy reduction and high levels of comfort when fans were used with AC at a higher setpoint temperature.

3:45 pm Closing Remarks for Zoom Participants [\[Conclude Zoom webinar\]](#) and Break (15 min)

4:00 pm Breakout Sessions

4:00 pm Breakout Table Topics

CBE staff and partners will lead roundtable discussions with in-person participants, focusing on current topics of concern to research and industry.

4:50 pm Conclude Plenary Session

5:00 pm Cocktail Hour and Dinner, Cal Alumni House, UC Berkeley Campus

Executive Session: Friday, October 20, 8:00 am-12:00 pm PDT

The Magnes Collection, 2121 Allston Way, Berkeley, CA [\[also Hybrid via Zoom\]](#)

Open to Industry Partner Representatives (two per supporting firm or membership team)

8:00 am Continental Breakfast

8:30 am Introductions and Director's Message [\[begin Hybrid webinar\]](#)

9:00 am Advisory Board Meeting

Moderated by CBE Partner Chair, Andrew Reilman and CBE Partner Vice Chair, Isabelle Lavedrine. CBE staff will present and solicit feedback regarding recent progress and future research projects to be planned for FY 2024-'25.

10:30 am Break

11:00 am Advisory Board Meeting, continued

Continue discussion regarding recent progress and additional topics for the future.

12:00 pm Conclude Executive Session [\[Conclude Zoom webinar\]](#)

Optional Lunch in Downtown Berkeley