

COBEE2022

The 5th International Conference on Building Energy and Environment

Centre for Zero Energy Building Studies (CZEBS)

Concordia University

2022 July 25 - 29, Montreal, QC



Overview



www.COBEE2022.org

- The Centre for Zero Energy Building Studies (CZEBS)@Concordia University is proud to host the 5th International Conference on Building Energy and Environment (COBEE 2022)
- COBEE2022 Facts in the COBEE history
 - Most abstract submissions (562 papers)
 - Most accepted papers (400): 325 full papers (8 pages) and 75 extended abstracts (3 pages)
 - Most worldwide coverage: 171 universities and 6 continents
 - Largest COBEE delegates from North America (158 papers); Asia (142 papers)
 - Largest conference on building engineering in Canada: 125 papers just from Canada
 - Most diversified with focuses on energy, health & renewables in smart buildings & cities
 - Mostly supported conference with major top-tier journals in building engineering
 - Largest international conference at Concordia University in 2022
 - Host to international workshops and collaborations: IEA Annex 79 & 80; JSPS; CIB TG 97























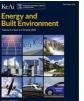
















History



COBEE2022 Organization

| | CONFERENCE CHAIRS & SECRETAR | IAT | | | | |
|--------------------------------|-----------------------------------------------------------------------|-----------------------------------------|--|--|--|--|
| General Chair | Dr. Liangzhu (Leon) Wang C | ncordia University, Canada | | | | |
| Co-Chair | Dr. Hua Ge C | icordia University, Canada | | | | |
| Co-Chair | Dr. John Zhai U | niv. of Colorado Boulder, USA | | | | |
| SECRETARIAT | Dr. Mohamed Ouf, Concordia University, Canada | | | | | |
| | Dr. Dahai Qi, Université de Sherbrooke, Canada | | | | | |
| | Dr. Chanjuan Sun, Univ. of Shanghai for Science and Technology, China | | | | | |
| | Dr. Dengjia Wang, Xi'an University of Archi | tecture and Technology, China | | | | |
| | PROGRAM CHAIRS | | | | | |
| Dr. A. Athienitis | Building Renewables, Solar Buildings | Concordia University, Canada | | | | |
| Dr. U. Eicker | Smart Cities (AI, IoT, ML) | Concordia University, Canada | | | | |
| Dr. T. Stathopoulos | Wind Engineering, Urban Physics | Concordia University, Canada | | | | |
| Dr. R. Zmeureanu | Thermal Comfort; Mechanical Systems | Concordia University, Canada | | | | |
| Dr. F. Haghighat | Indoor Air Quality and Health; Ventilation | Concordia University, Canada | | | | |
| Dr. M. Lacasse | Building Envelope and Materials | National Research Council | | | | |
| Dr. I. Beausoleil- Morrison | Thermal Storage; Advanced modeling and Building simulations | Carleton University, Canada | | | | |
| Dr. I. Hassan | Community and Urban Energy and Environment | Texas A&M University at Qatar, Qatar | | | | |
| | TECHNICAL CHAIRS | Quitar, Quita | | | | |
| Dr. M. Stylianou | CanmetENERGY, Natural Resources Canada | a Canada | | | | |
| Dr. L. O'Brien | Carleton University | Canada | | | | |
| Dr. C. Duchaine | Université Laval | Canada | | | | |
| Dr. G. Bitsuamlak | Western University | Canada | | | | |
| Dr. S. Leroyer | Environment Canada | Canada | | | | |
| Dr. S. Cao | Southeast University | China | | | | |
| Dr. N. Gao | Tongji University | China | | | | |
| Dr. M. Kummert | Polytechnique Montreal | Canada | | | | |
| Dr. Z. Liao | Ryerson University | Canada | | | | |
| Dr. Y. Liu | Xi'an University of Architecture&Technolog | y China | | | | |
| Dr. J. Pei | Tianjin University | China | | | | |





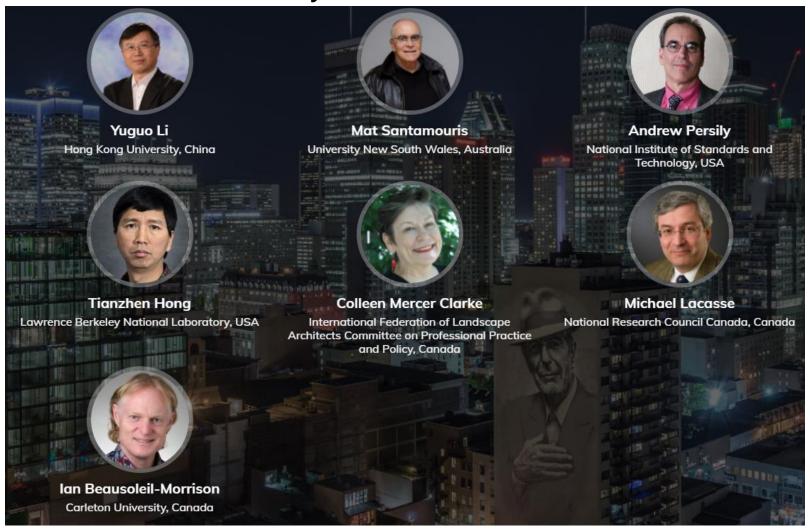






Keynotes

The Most influential keynotes in the COBEE conference history

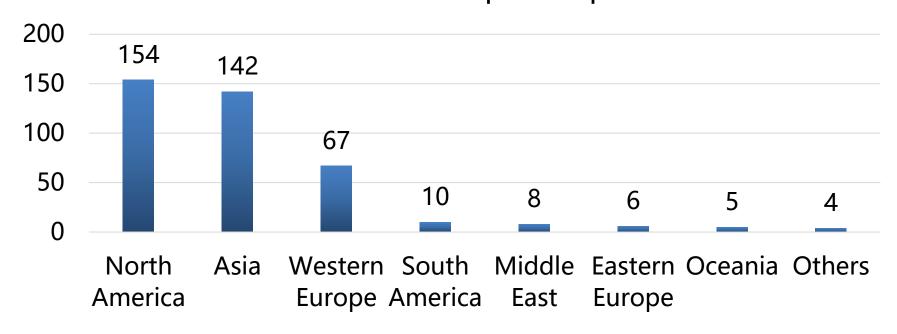


COBEE2022

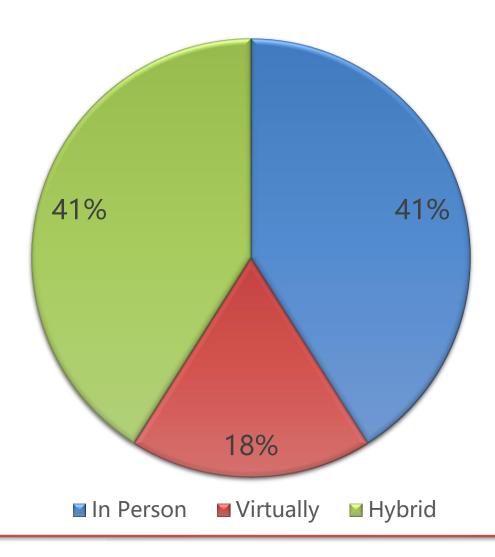
The Largest conference with ~400 accepted papers in COBEE conference history



Number of Accepted Papers



The Largest in-person conference at GCS and Concordia in the post-COVID period in 2022



Program with Opening/Plenary Sessions

COBEE 2022 PROGRAM SCHEDULE

| Time | Mon., July 25 | Tue., July 26 | Wed., July 27 | Thu., July 28 | Fri., July 29 |
|----------------|---------------|------------------------------------------|------------------------------------------------------------------|-------------------|-----------------------------------|
| 8:30 - 10:00 | | Opening Ceremony + Plenary Session | Plenary Session | Plenary Session | Plenary Session |
| 10:00 - 10:30 | | Coffee Break | Coffee Break | Coffee Break | Coffee Break |
| 10:30 - 12:00 | Registration | Parallel Sessions | Parallel Sessions | Parallel Sessions | Parallel Sessions |
| 12:00 - 13:00 | | Lunch | Lunch | Lunch | Lunch |
| 13:00 - 14:30 | | Parallel Sessions | Parallel Sessions | Parallel Sessions | Closing |
| 14:30 - 15:00 | | Coffee Break | Coffee Break | Coffee Break | |
| 15:00 - 16:30 | | Parallel Sessions | Parallel Sessions | Parallel Sessions | |
| 16:30 - 18:00 | | | | | Tours (FBL, CZEBS / NGCI Labs) |
| Starting 18:00 | Reception | | Banquet / Awards ceremony / New Conference Announcement | | |

Major focuses on **health**, and **renewables** in **smart** buildings and cities

| Topic | Count of submissions | No. of sessions | |
|----------------------------------------------------|-----------------------------|-----------------|--|
| | | | |
| Health and Indoor Air Quality, Ventilation | 79 | 13 | |
| Building Physics, Building Envelope and Materials | 45 | 8 | |
| Building Renewables, Solar Buildings & Smart Grid | 44 | 7 | |
| Advanced Modeling and Building Simulations, CFD | 41 | 7 | |
| Urban Microclimate and Energy | 28 | 5 | |
| COVID-19, Pandemic and Epidemic | 26 | 4 | |
| Resilience and Climate Change | 18 | 3 | |
| Thermal Comfort | 15 | 3 | |
| Occupant-Centric Building Design and Controls | 15 | 3 | |
| Low/Zero Carbon Emission Buildings and Communities | 13 | 2 | |
| Smart Buildings and Smart Cities (ML, Al, IoT) | 11 | 2 | |
| Building Mechanical System and Controls | 10 | 2 | |
| Thermal Storages | 4 | 1 | |
| Wind Engineering, Aerodynamics and Urban Physics | 4 | 1 | |
| Building Fire Safety | 7 | 1 | |
| Building Codes and Strandards | 7 | 1 | |



| SPONSORSHIP BENEFITS | Platinum | Gold | Silver | Bronze |
|---------------------------------------------------------------------------------------------------------------------|----------|--------|--------|--------|
| SPONSONSHIP BENEFITS | \$8000 | \$4000 | \$2000 | \$1000 |
| | | | | |
| Exhibit table (incl. 6 ft table, 2 chairs, power outlet + wifi) | ✓ | ✓ | | |
| "Virtual booth" on Sponsor webpage - Logo, contact information, PDF brochures, and multi- media | ✓ | ✓ | ✓ | ✓ |
| Opportunity to give remarks at the event | ✓ | ✓ | | |
| Access to conference delegate list (for those who have opted in) | ✓ | ✓ | ✓ | ✓ |
| Logo in ascending sponsorship level on: Conference homepage, event signage, program, social media mentions, etc | ✓ | ✓ | ✓ | ✓ |
| Complimentary event passes (in person or virtually) | 4 | 3 | 2 | 1 |
| Logo on badges | ✓ | | | |
| Logo on welcome slides (virtual) | ✓ | ✓ | | |