

CAE Roadmap to Resilient Ultra-Low Energy Built Environment with Deep Integration of Renewables in 2050 Montreal Symposium – Webinar - **October 16, 2020**

Register in advance for this meeting:

<https://concordia-ca.zoom.us/meeting/register/tJ0ucuCprDMuH9PjSWJHjVCS2OjQabAo0Nsd>

Online connection		10:30 – 11:00
Graham Carr , President and Vice-Chancellor of Concordia University	Opening Remarks	11:00 – 11:05
Gina Cody, FCAE , Gina Cody School of Engineering & Computer Science, Concordia University	Welcoming Remarks	11:05 – 11:10
Andreas Athienitis, FCAE, Symposium Chair & Roadmap Co-Chair , Director, Concordia Centre for Zero Energy Building Studies, Concordia University	Introduction	11:10 - 11:20
Yves Beauchamp, FCAE/FACG, President CAE , VP Administration and Finance, McGill University	Background	11:20 - 11:30
PAPER SESSION I		
PRESENTER	TITLE	
Miguel Anjos, FCAE , Professor and Chair of Operational Research, School of Mathematics, University of Edinburgh, U.K.	Integration of Smart Buildings into the Electric Energy Grid	11:35 - 11:40
Andreas Athienitis, FCAE , Professor and NSERC/Hydro-Québec Industrial Research Chair & Concordia Chair, Concordia University, QC	Design and Operation of Resilient and Flexible Buildings	11:40 - 11:45
Andrew Pape-Salmon, FCAE, Roadmap Co-Chair Executive Director, Building and Safety Standards Branch, Ministry of Municipal Affairs and Housing, BC	Net-Zero Ready Building Codes	11:45 - 11:50
Christopher Kennedy, FCAE , Professor and Chair, Civil Engineering, University of Victoria, BC	Jurisdictional Responsibility for Improving the Resilience of Buildings to Climate-related Power Outages	11:50 - 11:55
QUESTIONS		11:55 - 12:10
Ursula Eicker , Professor and Canada Excellence Research Chair, Building, Civil and Environmental Engineering, Concordia University, QC	Planning and Simulation of Net-Zero, Carbon Neutral and Resilient Communities	12:10 - 12:15
Remi Charron , Associate Professor, Energy Management, New York Institute of Technology, BC	Expanding Performance-Based Step-Codes Beyond Energy Efficiency using A Forward-Looking Reference Building	12:15 – 12:20
Caroline Hachem-Vermette , Associate Professor, Environmental Design, University of Calgary, AB	Design Strategies for Climate Resilient Neighborhoods	12:20 – 12:25
Theodore Stathopoulos, FCAE , Professor, Building, Civil, and Environmental Engineering, Concordia University, QC	Wind Resilience: Proceeding from Wind Codes and Standards of Building Design Practice	12:25 - 12:30

QUESTIONS		12:30 – 12:45
BREAK		12:45 – 13:05
PAPER SESSION II		
PRESENTER	TITLE	
Rosamund Hyde , Manager of Research and Innovation Services, Stantec, ON	Building Operation and Occupant Behavior	13:05 - 13:10
Ted Kesik , Professor, Architecture, University of Toronto, ON	The Challenges of Developing Thermal Resilience Policies, Protocols and Procedures for Buildings	13:10 – 13:15
Iain MacDonald , Senior Research Officer, National Research Council Canada, ON	Supporting the Development of Net Zero Energy Ready Building Codes	13:15 – 13:20
Liam O’Brien , Associate Professor, Architectural Conservation and Sustainability Engineering, Carleton University, ON	A New Housing Stress Test: Codifying Thermal Resilience of Buildings	13:20 - 13:25
Louis Gosselin , Professor, Mechanical Engineering, Laval University, QC	Lessons Learned with Respect to the CAE Roadmap from the Monitoring of a High-Performance Social Housing Building in Quebec City	13:25 – 13:30
QUESTIONS		13:30 - 13:45
Fariborz Haghighat , Professor, Building, Civil and Environmental Engineering, Concordia University, QC	Air Purification Technologies for Resilient Buildings: Abilities and Limitations	13:45 – 13:50
Meli Stylianou , Manager, Housing and Buildings R&D, CANMET Energy, Natural Resources Canada, ON	Pathways for Net Zero Energy Buildings and Communities Research Activities at Canmet Energy-Ottawa	13:50 – 13:55
Marianne Touchie , Assisant Professor, Civil Engineering and Mechanical & Industrial Engineering, University of Toronto, ON	Passive Strategies to Improve Multi-unit Residential Building Thermal Comfort Resilience in Future Climate Scenarios	13:55 – 14:00
Costa Kapsis , Assisant Professor, Civil and Environmental Engineering, University of Waterloo, ON	Building-Integrated Photovoltaic Systems: Enabling Energy-Resilient High-Performance Buildings	14:00 – 14:05
Ian Beausoleil-Morrison , Professor, Mechanical and Aerospace Engineering, Carleton University, ON	Providing the Majority of the Energy Needs of Canadian Housing by Solar: The Need for Seasonal Storage	14:05 – 14:10
QUESTIONS		14:10 – 14:25
BREAK		14:25 – 14:30
PANEL DISCUSSION: Designing a Resilient Ultra-Low Energy Built Environment with Deep Integration of Renewables: additional perspectives Co-chairs: Andreas Athienitis and Andrew Pape-Salmon Marianne Armstrong , Principal Research Officer, NRCC: <i>Resilience in building codes</i> Christian Bélanger , Director Strategic and Transversal Projects, IREQ, Hydro-Québec: <i>Buildings and Electric power system of the future - A new partnership to define</i> Bryan Purcell , Vice President of Policy and Programs, Atmospheric Fund & Federation of Canadian Municipalities: <i>Planning municipalities for sustainability and resilience</i> Sophie Hosatte – Ducassy , Director- Buildings Group, CanmetENERGY, NRCAN: <i>Building energy efficiency, advanced heat pumps, thermal storage and optimal control of high performance buildings</i>		14:30 – 15:30
ALL	CLOSING DISCUSSION	15:30 – 16:00