



Concordia University – Vietnam: Building partnerships toward a sustainable future

December 12th, 2023





Introduction

2023 marks the 50th anniversary of the establishment of diplomatic relations between Canada and Vietnam. In light of this important landmark, Concordia University is launching the *Concordia – Vietnam: Building partnerships toward a sustainable future* event, which aims at highlighting important contributions that Concordia and Vietnamese researchers are making to sustainable development in key domains, as well as at identifying opportunities for future collaboration.

Located in Montreal (Quebec), Concordia is a young, forward-looking, and multicultural university, where research, experimentation, innovation, and creativity are put into service to respond to the grand challenges faced by society. Similarly, Vietnam has made strong commitments to education and research for sustainable development, reaffirming the country's status as a pole of innovation and research in sustainability in Southeast Asia. Based on these common elements of interest, there are promising opportunities for Concordia University and Vietnamese institutions to engage in active collaborations in key areas of sustainable development.

At an institutional level, Concordia has placed a strong commitment to partner with Vietnamese organizations to promote joint research, training and co-publication. The *Concordia – Vietnam: Building partnerships toward a sustainable future* event will bring together a group of researchers from Concordia University and Vietnamese institutions to discuss some of the most relevant trends in sustainable development, particularly in the areas of energy, water and next generation cities. This event will also be an occasion for exploring potential synergies and complementarities for future collaboration.

Logistics

Location	Concordia 4th Space: 1400 Maisonneuve Blvd W, Montreal, H3G 1M8
Virtual participation	By Zoom webinar – RSVP By 4th Space's YouTube channel .
Date and time	Tuesday December 12 th , 2023, 9 am to 12 pm EST
Language	The event will be conducted in English.
Contacts	Concordia University: Joaquin Navas, Special Projects, Concordia International (joaquin.navas@concordia.ca)



Agenda

MC: Mr. [William Cheaib](#), Chief of Staff and Associate VP, International

9:00 – 9:25 Welcome remarks
Prof. [Graham Carr](#), President and Vice-Chancellor, Concordia University
Mr. [Trinh Quoc Vu](#), Deputy Director General, Ministry of Industry and Trade, Energy Efficiency and Sustainability Development Department
Prof. [Rémi Quirion](#), Chief Scientist of Québec
Mrs. [Thi Be Nguyen](#) (Canada-ASEAN Business Council)

9:30 – 10:30 Presentations and panel discussion I
Building resiliency in energy and water

Moderator: Dr. [Alex De Visscher](#), Professor and Chair, Chemical and Materials Engineering, Concordia University.

- Prof. [Catherine Mulligan](#), Director of the Concordia Institute of Water, Energy and Sustainable Systems, Concordia University.
- Prof. [Hoang Thi Thu Huong](#), Head, Department of Environmental Science and Technology, School of Chemistry and Life Science, Hanoi University of Science and Technology, Vietnam.
- Prof. [Karim Zaghbi](#), Department of Chemical and Materials Engineering, Concordia University.
- Mr. [Le Ngoc Anh Minh](#), Vietnam ASEAN Hydrogen Club.

10:45 – 11:45 Presentations and panel discussion II
Envisioning the cities of the future

Moderator: [Natalie Volland](#), President, Gestion Immobilière Quo Vadis.

- Prof. [Ursula Eicker](#), Director of the Next-Generation Cities Institute, Concordia University.
- Prof. [Trinh Tu Anh](#), Institute of Smart City and Management, University of Economics Ho Chi Minh (UEH), Vietnam.
- Prof. [Andreas Athienitis](#), Director, Concordia Centre for Zero Energy Building Studies, Concordia University.
- Prof. [Tran Thien Khanh](#), Director of International Affairs & Scientific Development, Dong Nai Technology University, Vietnam.

11:45 – 12:00 Closing Remarks

Key participants

PROF. GRAHAM CARR

President and Vice-Chancellor of Concordia University



Prof. Graham Carr is President and Vice-Chancellor of Concordia University. Ranked as Canada's top university under 50 years old by QS, Concordia has two Montreal campuses that are home to more than 50,000 undergraduate and graduate students and 7,000 faculty and staff. Graham's previous leadership positions at Concordia include Provost and Vice-President, Academic Affairs; Vice-President, Research and Graduate Studies; and Dean of Graduate Studies.

Born in Quebec, Graham earned his PhD from the University of Maine and is a Professor in the Department of History. His research focuses on North American cultural history, in particular cultural diplomacy and the Cold War. He currently serves on the Board of Directors of Centraide (United Way) of Greater Montreal and as the Réseau du sport étudiant du Québec (RSEQ) representative on the Board of U SPORTS, the national brand for university sports in Canada.

Graham is also a member of the Research Committee of Universities Canada and sits on the Steering Committee of Montreal Climate Partnership (Partenariat Climat Montréal). He previously served on the Leadership Council for Digital Infrastructure, as President of the Canadian Federation for the Humanities and Social Sciences, as Chair of the Canada-US Fulbright selection committee, and for many years on the National Capital Commission's Advisory Committee for Communications, Marketing and Programming.

PROF. RÉMI QUIRION

Chief Scientist of Quebec



On September 1, 2011, Rémi Quirion, OC, CQ, PhD, FRSC, became Québec's first chief scientist. As such, he chairs the boards of directors of the three Fonds de recherche du Québec and advises the Minister of Economy and Innovation on research and scientific development issues. As of September 2021, he is also the president of the International Network for Government Science Advice (INGSA).

Until his appointment as chief scientist, Rémi Quirion was the vice-dean for science and strategic initiatives in the faculty of medicine at McGill University and senior university advisor on health sciences research. He was the scientific director of the Douglas Mental Health University Institute Research Centre, a full professor in the department of psychiatry at McGill University and the executive director of the International Collaborative Research Strategy for Alzheimer's Disease of the Canadian Institutes of Health Research. Professor Quirion was the first scientific director of the Institute of Neurosciences, Mental Health and Addiction (INMHA), one of Canada's 13 health research institutes.

His work helped to elucidate the roles of the cholinergic system in Alzheimer's disease, of neuropeptide Y in depression and memory and of the calcitonin gene-related peptide (CGRP) in pain and opiate tolerance. Rémi Quirion earned his PhD in pharmacology from Université de Sherbrooke in 1980 and carried out his postdoctoral training at the National Institute of Mental Health in the United States in 1983. He has over 750 publications in prominent scientific journals and is one of the most extensively cited neuroscientists in the world. He has received several awards and honours, including the Ordre national du Québec (Chevalier du Québec, CQ) in 2003, the Prix Wilder-Penfield (Prix du Québec) in 2004 and the Order of Canada (OC) in 2007. Mr. Quirion is a member of the Royal Society of Canada and was also inducted into the Canadian Medical Hall of Fame. In 2015, he was appointed Officer in the Order of Academic Palms of the French Republic, a distinction awarded by the French government that recognizes its contribution to the development of French-Québec relations in research.

Key participants

MS. THI BE NGUYEN

Executive Director in Canada, Canada-ASEAN Business Council



Thi Be Nguyen is the Executive Director in Canada of the Canada-ASEAN Business Council (CABC) based in Montréal. She leads the Council's Canadian office to build bilateral and business ties between Canada and countries in the Association of Southeast Asian Nations (ASEAN) with governments, embassies, businesses, and organizations. She also received twice recognition from Ambassador Pham Cao Phong of the Embassy of Vietnam in Canada for her commitment to creating bilateral relationship between Canada and Vietnam. Furthermore, she was twice a Delegate at the G20 B20 in Indonesia (2022) and India (2023) and was a member of the B20 India Task force in technology, innovation, and R&D as well as the B20 India Action Council in ESG.

Thi Be graduated from Concordia University with a bachelor's degree in Commerce and Marketing (BCom). She holds a Certificate in Global Diplomacy from the University of London and a Certificate of Completion in Sustainable Development Strategy from Stanford University. She has over 20 years of experience in business, public affairs, diversity and inclusion, social engagement, and international relations. Over the last 22 years, she worked at the head office of the National Bank of Canada in which the last decade as the Director of the Office of the president and philanthropy in the department of public relations and Corporate Social Responsibility.

MR. WILLIAM CHEAIB (MC)

Chief of Staff and Associate VP, International, Concordia University



William Cheaib is the chief of staff to the president and vice-chancellor of Concordia University. In this role, he provides advice to the president and assists him in developing and implementing strategy. In addition, William oversees Concordia's international relations as associate vice-president international.

He has a track record in pioneering successful international alliances and advising on government and institutional strategies in international and next-generation education. His past and present public service includes the Canadian Bureau for International Education (CBIE), Expo-Entrepreneurs, Engcomm, and the Montreal Science Centre Foundation.

In 2018, William launched the Africa Initiative that aims to empower African youth through education, entrepreneurship and technology. He is a regular speaker on intercultural communication and strategic planning for the education and public sectors. He holds a Bachelor and a Master's degree in Law. He has a broad administrative experience, a solid background in international relations and a passion for moving the education agenda forward.

Panel I

Building Resiliency in Energy and Water

Overview

By inviting panelists to share some of the most relevant contributions of their research work to sustainable water management and renewable energy, this panels aims at highlighting:

- Relevant examples of research work done at Concordia and Vietnam in these domains.
- Emerging trends that could become gamechangers in the near future.
- Barriers and promising solutions for achieving water and energy resiliency.
- Potential collaboration opportunities between researchers from Concordia University and Vietnamese universities.

PROF. ALEX DE VISSCHER (*Moderator*)

Professor and Chair, Chemical and Materials Engineering, Concordia University



Dr. Alex De Visscher is Professor and founding Chair of the Department of Chemical and Materials Engineering at Concordia University. He has a broad range of research interests in chemical engineering fundamentals such as chemical thermodynamics and kinetics, transport phenomena, solubility phenomena, and molecular modeling, with applications in chemical engineering and sustainability.

He has published over 60 articles in a wide range of scholarly journals and was editor and main author of the 95th volume of the IUPAC-NIST Solubility Data Series, on alkaline earth carbonates. His first book, Air Dispersion Modeling: Foundations and Applications was published in 2013 by J. Wiley & Sons, Hoboken, NJ.

Dr. De Visscher obtained his PhD at Ghent University, Belgium, in 2001. He moved to Canada in 2005, to take on a Canada Research Chair in Air Quality and Pollution Control Engineering at the University of Calgary. In 2017 he moved to Montreal to join Concordia University.

PROF. CATHERINE N. MULLIGAN, Ph.D, Eng.

Director of the Concordia Institute of Water, Energy and Sustainable Systems, Concordia University



Dr. Mulligan obtained her B.Eng. and M. Eng. In chemical engineering and PhD in environmental engineering from McGill University. She worked for the Biotechnology Research Institute of the National Research Council of Canada and SNC Research Corp. Of SNC Lavalin before joining Concordia University in 1999.

Dr. Mulligan held a Concordia Research Chair in geo-environmental Sustainability (Tier I) until 2021 and is a full professor in the Dept. of Bldg., Civil and Environmental Engineering. She has authored more than 120 refereed papers in various journals, co-authored or edited 8 books (mainly environmental engineering), holds 3 patents and has supervised to completion more than 69 graduate students. She is the founder and director of the Concordia Institute of Water, Energy and Sustainable Systems.

She performs research and teaches in the areas of soil, sediment and surface water remediation and energy production via biological and membrane processes. She is a Fellow of the Canadian Society for Civil Engineering (CSCE) and its current Past-President. She is also a Fellow of the Engineering Institute of Canada (EIC) and the Canadian Academy of Engineering and was a winner of the John B. Sterling Medal of the EIC.

PROF. HOANG THI THU HUONG, Ph.D, Eng.

Head, Department of Environmental Science and Technology, School of Chemistry and Life Science, Hanoi University of Science and Technology



Dr. Hoang Thi Thu Huong is currently an Associate Professor and the Head of the Department of Environmental Science and Technology, School of Chemistry and Life Sciences at Hanoi University of Science and Technology. After completing a B. Eng. In chemical engineering, she obtained a M.Sc. in Soil and Water Science from University of Adelaide (Australia) and a PhD in Applied Biological Science from Ghent University (Belgium). In the past five years, she has been the principal investigator of many domestic research projects and has participated in projects funded by international donors like USAID, GCRF Fund (UK), Swiss Science Foundation, as well as industries such as Panasonic and Honda. She has also published numerous papers domestically and internationally, including nine articles in international journals of the SCI/SCIE system.

Dr. Hoang's research work mainly focuses on the following domains:

- Environmental chemistry, environmental toxicology and aquatic ecology; Biological indicators in freshwater quality assessment.
- Nutrient enrichment and eutrophication in freshwater bodies.
- Developing ecological models and applying artificial intelligence in environmental research.
- Water reuse, nature-based water and wastewater engineering.

PROF. KARIM ZAGHIB, Ph.D, Eng,

Department of Chemical and Materials Engineering, Concordia University



Dr. Karim Zaghieb is a professor in the Department of Chemical and Materials Engineering. He obtained his doctorate from the Institut Polytechnique de Grenoble (France) and habilitation degree in Physics from Université Pierre-et-Marie-Curie (Paris). His research has contributed to Quebec's globally recognized reputation as a pioneer of batteries and lithium-ions innovation. He has already received several awards and achievements throughout his career, such as Recipient of the Lionel-Boulet Award, the highest distinction conferred by the Government of Quebec to a person with a remarkable career in research in the industrial field (2019); Fellow of the Royal Society of Canada (2021); and the Kalev Pugi Award from the Society of Chemical Industry Canada (2022).

Dr. Zaghieb conducted research in Japan, exploring batteries and energy storage in collaboration with organizations such as the National Institute of Advanced Industrial Science and Technology and Sony. After arriving in Canada in 1995, he joined Hydro-Québec's Research Institute as the director of research and made the first strides in the use of lithium-ion phosphate on the planet.

MR. LE NGOC ANH MINH

Founder and Chairman, Vietnam ASEAN Hydrogen Club



Mr. Minh is an infrastructure investment expert in Vietnam. He is the founder of the Vietnam ASEAN Hydrogen Club, the Vietnam Clean and Innovative Agriculture Club (VCAC), and the Hashi Manpower Club. He is also the founder and Executive Chairman of the Pacific Group Co, as well as the chief representative of the BRICS-ASEAN Chamber of Commerce in Vietnam.

Mr. Minh has 28 years of experience managing and developing large-scale projects in Vietnam, such as such as Phu My I Combined Cycle Power Plant and the Nhat Tan Bridge Project. His experience includes 22 years in leadership roles in mid-sized companies and 15 years developing new businesses in Vietnam.

Panel II

Envisioning the cities of the future

Overview

Panelists will be invited to present their research work in next generation cities-related topics and suggest potential implications for the future of urban planning and development. By doing so, this panel intends to address some of the following questions:

- In what directions do you foresee smart cities and urban planning research going in the next three years?
- What key solutions do you imagine emerging from such research?
- What do you think would be the main challenges for scaling up such solutions in your city and globally?
- How could a potential collaboration between Concordia University and Vietnamese researchers contribute to overcome such challenges?

MRS. NATALIE VOLAND (*Moderator*)

President, Gestion Immobilière Quo Vadis



Mrs. Natalie Voland is an award winning, social driven developer who has been reinventing the process of real estate development for over 25 years. Natalie is a member of the Concordia Chair of Excellence in Research on Smart and Resilient Cities and the Next Generation Cities Institute, as well as a PhD candidate specializing in business practices that drive sustainability on the built environment.

As a leader of the Quebec B Corp. Movement, her companies contribute to the protection of the environment and foster social inclusion, while making market driven profit to further the economic development of Montreal. Natalie manages 1.5 million square feet, supports over 500 entrepreneurs, and is an active expert, public speaker and mentor. Her newest venture “Quo Vadis Capital” is investing in carbon mitigated accessible housing to address inclusion and climate change in real estate. Natalie sits on several Boards and think tanks associated to her passion to be a leader in Environmental, Social and Governance (ESG) development. As an active master planner, she partners with universities to use her assets as teaching and prototype tools to evolve concepts on about the kind of cities that we want to build as citizens and corporate leaders.

PROF. URSULA EICKER, Ph.D, Eng,

Director of the Next-Generation Cities Institute, Concordia University



Prof. Ursula Eicker is the Canada Excellence Research Chair (CERC) in Smart, Sustainable and Resilient Communities and Cities and Founder of the [Next-Generation Cities Institute](#) at Concordia University in Montréal. Her research interest focuses on zero emission urban transformation. She is working on multiple eco-district projects and is building an urban modeling and data platform to assess urban decarbonization strategies. Her team develops digital twins with gamification and 3D web interfaces to engage users.

Prof. Eicker received her PhD in Solid State Physics from Heriot-Watt University and her Habilitation in Renewable Energy Systems from the Berlin Technical University. She has published 7 books, 24 book contributions, over 130 Peer-Reviewed Papers and more than 330 Conference Papers. She has also held leadership positions at the Stuttgart University of Applied Sciences and its Centre for Sustainable Energy Technologies, and has coordinated many research projects in the fields of zero-carbon cities, renewable energy systems, sustainable transportation and circular economy.

PROF. TRINH TÚ ANH, Ph.D.

Director of Institute of Smart City and Management, University of Economics of Ho Chi Minh City (UEH)



Dr. Trinh Tú Anh holds a PhD in Transportation Sciences from Hasselt University (2013) and currently serves as the director of the Institute of Smart City and Management (ISCM) at the University of Economics Ho Chi Minh (Vietnam). She also serves as a guest lecturer and supervisor for master's and Ph.D. students at renowned international universities such as Trieste University, Hasselt University, Thammasat University, and Handong Global University. Dr. Trinh holds memberships in esteemed organizations including the Smart City and PropTech Village-Techfest Vietnam, Woman in Transport Leadership Network (WiTL), and Eastern Asia Society for Transportation Studies. Additionally, she has held committee positions in various conferences, including the 1st Conference on Asian Inclusive Smart Cities in the post-Covid-19 Arena (2021), the International Conference on Aviation Future: Challenge and Solutions (AFCS-2020), and the International Conference on Sustainable Development Civil, Urban, and Transportation Engineering (2018, 2016). Dr. Tú Anh has made significant contributions to international research projects related to sustainability, smart cities, urban and transportation planning, traffic safety, transport economics, and aviation operations. Her academic excellence is evident through her numerous publications in prestigious journals and proceedings of academic and press conferences.

PROF. ANDREAS K. ATHIENITIS, Ph.D., Eng.

Director, Concordia Centre for Zero Energy Building Studies, Concordia University



Dr. Andreas K. Athienitis is a Professor of Building Engineering and Director of the Centre for Zero Energy Building Studies that he founded at Concordia University. He obtained a PhD in Mechanical Engineering from the University of Waterloo (1985). He holds the NSERC/Hydro Québec Industrial Research Chair “Optimized Operation and Energy Efficiency: Towards High Performance Buildings”, a Concordia University Research Chair in Solar Energy, and he is the Chair of the CFREF Volt-age Scientific Committee. Dr. Athienitis is internationally recognized and a leader in smart net-zero energy solar buildings - a Fellow of the Canadian Academy of Engineering, Fellow of IBPSA and Fellow of ASHRAE. He led as Principal Investigator the NSERC Smart Net-zero Energy Buildings Strategic Research Network and the NSERC Solar Buildings Research Network. He was profiled as one of 25 top innovators in Québec by *Actualité* Magazine. He has published over 300 refereed papers, including eight that received best paper awards, and several books. He played a leading role in the conception and realization of several award-winning innovative buildings such as the Varennes net-zero energy Library, EcoTerra House and his own award-winning solar home. He currently chairs the Canadian Academy of Engineering Roadmap to Resilient, Ultra-Low Energy Built Environment with Deep Integration of Renewables.

PROF. TRAN THIEN KHANH, Ph.D, Eng.

Director of International Affairs & Scientific Development, Dong Nai Technology University



Dr. Thien Khanh Tran is a Vietnamese scientist, currently working at Dong Nai University of Technology as head of the Technology, Science and International Affairs. Dr Tran graduated in 2016 from Feng Chia University, Department of Material Sciences and Engineering, with an excellent thesis on a topic related to the manufacturing of hydrogen production system using industrial wastewater as an influent.

After returning to Vietnam, Dr Tran has worked as a scientist and lecturer at leading research organizations and universities. Together with his students and colleagues, Dr Tran has conducted practical research projects and created excellent products, many of which have been welcomed by different companies. The main topic of these projects revolves around the creation of materials for electrolyzer systems for hydrogen production, waste-to-energy processes, water sciences, and circular economy in industry. Some of these projects have been adopted for community development purposes.

Driven by the desire to contribute to the energy industry in Vietnam, Dr Tran aims to share his professional knowledge for developing human capacities for the hydrogen industry. From this perspective, Dr Tran is deeply aware of the need of further research and cooperation with more advanced countries as a means of finding useful solutions to support the growing demand of clean energy in Vietnam and other developing countries.

Organizers

MR. JULIO SEVILLA

Manager, International Projects – Concordia International



MR. JOAQUIN NAVAS

Special Projects Lead – Concordia International

