



**University
of Victoria**

**Retirees
Association**

CLIMATE CHANGE ANXIETY: CAUSES, CONSEQUENCES, SOLUTIONS AND COSTS AN ELDER ACADEMY EVENT

This series complements the “Living Without Oil” series offered earlier this year. Climate change is insidious; it has occurred since the beginning of time. Is current climate change acceptable? If not, can we effect change: can society stop change or reduce the rate of change? Is reducing the rate of change sufficient? Can we go too far and cause change we don’t want? What are the costs of attempting it (financial and societal)? What are the costs if we don’t address change? If we fail, what will be the consequences? What makes you anxious about climate change and is this anxiety warranted? You may share some of these questions and perhaps the presentations, which form this series, may provide you with answers.

WHEN, WHERE, HOW MUCH?

DATES: Saturdays, Nov 7, 14, 21, 28, Dec 5 2020

TIME: 10:00 am to noon (Zoom entry available starting at 9:45am)

WHERE: Online via Zoom

LINK TO JOIN THE SESSIONS: Emailed to registrants via Eventbrite

COST: \$25.00 for the five sessions.

Nov 7: [“Key Climate Research Activities in the Canadian Centre for Climate Modelling and Analysis, CCCma”](#),

Presenter: Dr. Ellie Farahani, Manager CCCma

Nov 14: [“Climate Change an Earth Scientist’s Perspective”](#),

Presenter: Tom Gallagher, Explorationist & Researcher

Nov 21: [“The Importance of Oceans to Climate Change”](#),

Presenter: Dwight Owens, ONC

Nov 28: [“Is Geoengineering the Naloxone for our Fossil Fuel Addiction”](#)

Presenter: Dr. Hadi Dowlatabadi, Professor UBC

Dec 5: [“Tackling the Adaptation Imperative: International Best Practices”](#),

Presenter: Dr. Hannah Teicher, Researcher, PICS

REGISTRATION AND PAYMENT

Registration and credit-card payment done through Eventbrite: [click here](#)

STUDENTS attend free but must register by emailing uvraelderacademyevents@uvic.ca using their UVic Netlink ID to obtain the Zoom link.

CLIMATE CHANGE ANXIETY SERIES: AN ELDER ACADEMY EVENT

Saturday, November 7, 10am – noon, Zoom

“Key Climate Research Activities in the Canadian Centre for Climate Modelling and Analysis (CCCma)”

Presenter: Dr. Ellie Farahani



Dr. Ellie Farahani has been a climate scientist and a policy practitioner for more than two decades, Chief Operating Officer at the United Nations Intergovernmental Panel on Climate Change Working Group III on mitigation of climate change in Germany, Executive Director of Climate Science and Policy Program at Scripps Institution of Oceanography in USA, Lead Author of the IPCC Fifth Assessment Report (AR5), faculty member of the University of California San Diego, USA, and Joint Fellow of sustainability and atmospheric physics at the University of Toronto, Canada.

Prior to her current role as Manager of Canadian Centre for Climate Modelling and Analysis (CCCma), Dr. Farahani was the Special Advisor, providing technical advice on best practices, technologies and incentive systems to deliver a sustainable 2022 FIFA World Cup in Qatar.

Ellie is also the co-founder of a boutique environmental consulting firm in Canada. In that role, she has led multidisciplinary research in energy conservation and in sustainability training, planning and implementation. She has acted as lead consultant for the development of MaRS Discovery District's and Toronto Hydro's energy management plans in Toronto, Canada. Prior to managing national and international science and policy initiatives, Ellie has worked on climate change issues for more than a decade and conducted five field campaigns in the Canadian high Arctic (80N), using spectroscopic techniques to measure concentration of greenhouse gases in Canadian Arctic, evaluating satellite observations and more importantly assessing IPCC climate models. Dr. Farahani, a Senior Massey Fellow, obtained her PhD in Experimental Atmospheric Physics from University of Toronto, Canada and her MBA from Kellogg School of Management, Northwestern University, USA. She has received numerous awards and scholarships. Her expertise ranges from climate science, climate change impacts, adaptation and mitigation options and their related policies, climate policy international negotiation to sustainability planning, best practices and energy management.

“The Canadian Centre for Climate Modelling and Analysis (CCCma), a section of Environment and Climate Change Canada (ECCC) Climate Research Division, develops and applies a tightly integrated modelling system that underpins Canada's key climate research activities. The CCCma modelling system also produces the data products that serve national and coordinated international climate science projects and assessments.

On the national scale, CCCma has made key expertise and modelling contributions to Canada's Changing Climate Report, published in 2019 and is expected to make similar contributions to a new CCCR report planned for 2023. This report provides the key physical climate change assessment to underpin adaptation planning in Canada. CCCma also develops models and methodologies underlying the ECCC's operational Canadian Seasonal to Interannual Prediction System (CanSIPS) and its suite of seasonal forecast products, and coordinates CanSIPS contributions to international operational and research activities.

On the international scene, Canada, as a party to the United Nations Framework Convention on Climate Change (UNFCCC), has a commitment to carry out research to improve understanding of climate change and reduce uncertainties in climate change projections; similarly as a party to the Vienna Convention, Canada is committed to carrying out research on ozone depletion and its climate effect. CCCma plays a key role in providing the climate model simulations, research and assessment contributions to fulfill Canada's obligations in these areas. In this presentation, I will provide an overview of CCCma key research activities ranging from simulating Canadian and global climate, to predicting changes on seasonal to centennial timescales, to responding to the growing need for climate information via continuous development, analysis and application of world-class global and regional climate (Earth System) models.”

To register: [click here](#)

CLIMATE CHANGE ANXIETY SERIES: AN ELDER ACADEMY EVENT

Saturday, November 14, 10am – noon, Zoom

“Climate Change: An Earth Scientist’s Perspective”

Presenter: Thomas P. Gallagher



With over 48 years of active Geoscience experience in the minerals, petroleum and venture businesses both internationally and in Canada, Tom has onshore and offshore experience as a researcher and explorationist in large public companies and as a member of various private exploration, research and investment corporations. Tom has created and served on the boards of educational foundations and academic research organizations, in Canada. He has a strong interest and contemporary knowledge of the geochronology of earth systems and geologic history.

“Knowing that climate has and is continuing to change, the challenge before us is to correctly interpret what causes climate to change. In geoscience it is important to read the earth evidence and understand the major processes that took place as we take a walk through time in the Atmosphere, Biosphere, Lithosphere, Hydrosphere and Cryosphere. The complexity of earth systems and the interplay between them is enormous. There is significant opportunity for uncertainty in interpretation. The role of the sun and its variable intensity and distance over time will be shown to be critical in controlling the synchrony of these earth processes. Periodically, planet earth is subjected to short term events which dramatically move the climate change needle. Volcanos and Asteroids have, with varying intensity caused significant aberrations to the rhythmic climate change cyclicity. The earth recovers from these aberrations and we can then calibrate the severity of the impacts on the earth systems. We will address large forgotten components of the earth energy systems that are necessary to initiate large climate variations and then develop a holistic view of the past to better understand the future. We will focus mainly on the last 55 million years when the continental plates were in a configuration most similar to today.

Today it is argued that the rapid population increase in homo sapiens in the biosphere is resulting in a climate change aberration. If the “science is settled” there must be a clear explanation and understanding of how and why that does not neglect all the largest energy drivers in the system. We will explore some of the current assertions by returning to our understanding of earth processes, by an examination of preserved evidence in the geologic record. In this context, perhaps we will be able to address the issue of climate change uncertainty and anxiety and map a clearer path forward with a more complete set of tools.”

To register: [click here](#)

CLIMATE CHANGE ANXIETY SERIES: AN ELDER ACADEMY EVENT

Saturday, November 21, 10am – noon, Zoom
[“The Importance of Oceans to Climate Change”](#)

Presenter: Dwight Owens



Dwight Owens, BA in Chinese and MA in Educational Technology, both from the University of Colorado. He has over 25 years’ experience in design and development of rich media and interactive education, largely science-related. An Ocean Networks Canada member since 2008, he is immersed in ocean science, working with geophysicists, marine ecologists, oceanographers, seismologists and tsunami modellers. Dwight has 20 years of experience in design and development of computer- and web-based rich media and interactive educational materials. Much of this work has been science-related, including a diversity of topics such as radar meteorology, the aurora borealis, hurricane safety, fire weather, watershed protection and the physics of shallow-water waves.

“The global ocean is under stress from warming, acidification and oxygen declines. Why are these changes happening and what impacts can we expect? This talk outlines these three interrelated stressors, examining impacts and actions we can take to counteract them. Why oceans are important to human society and the earth climate system. Solutions and individual actions to support ocean ecosystem resilience will be discussed.”

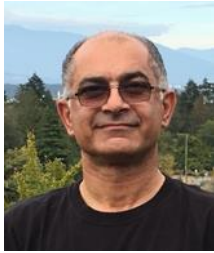
To register: [click here](#)

CLIMATE CHANGE ANXIETY SERIES: AN ELDER ACADEMY EVENT

Saturday, November 28, 10am – noon, Zoom

[“Is Geoengineering the Naloxone for our Fossil Fuel Addiction?”](#)

Presenter: Dr. Hadi Dowlatabadi



Dr. Hadi Dowlatabadi was trained as a physicist (PhD Cambridge University 1984) and has focused in research efforts at the interface of nature, humans, technology and policy. He has studied various aspects of climate change since 1986. Hadi has served as Lead Author for the IPCC, the Millennium Ecosystem Assessment, and reviewer for WHO’s Global Burden of Disease. He has worked with over 40 PhDs and 20 Master students to complete their degrees and published over 150 peer reviewed papers. Outside the university, Hadi has helped start up eight companies focussed on finding solutions to climate change. Hadi holds a Tier I Canada Research Chair in Applied Mathematics of Global Change at UBC. He is also an Adjunct Professor in the Department of Engineering & Public Policy at Carnegie Mellon University in Pittsburgh, PA. and a University Fellow at Resources for the Future in Washington DC.

“Twenty-eight years ago, David Keith (author of the book ‘A case for Climate Engineering’) and I feared a future in which the political will to address climate change would fall short of what would be needed. We worked on and wrote about different approaches to slowing down run-away climate change. We were misunderstood and vilified. Yet, our worst fears are today’s reality. Even the mention of geoengineering raises the ire of most audiences. Most see it as the height of hubris. Humans daring to think about deliberate manipulation of the earth’s biogeochemical balance. David, who continued to work on the topic has received death threats.”

In this presentation, I hope we can start a conversation about three topics: a) That humans have been manipulating their environment at a massive scale since the introduction of fire; b) an overview of different types of geoengineering for temporary amelioration of climate change; and c) that just like Naloxone, we will likely become habituated to geoengineering, unless it is combined with therapy for addiction to fossil fuels.”

To register: [click here](#)

CLIMATE CHANGE ANXIETY SERIES: AN ELDER ACADEMY EVENT

Saturday, December 5, 10am – noon, Zoom

“Tackling the Adaptation Imperative: International Best Practices”

Presenter: Dr. Hannah Teicher



Dr. Hannah Teicher joined PICS in June 2019 as the institute’s first Researcher in Residence dedicated to advancing climate solutions in the built environment, liaising between academia, government, industry and NGOs. She is currently developing an initiative to accelerate policy for embodied emissions at the city scale in buildings and beyond. She brings experience in research and practice at multiple scales from the building envelope to regional consortiums. She recently completed a PhD in urban and regional planning at MIT where she focused on cross-sectoral collaborations for adaptation planning. In her dissertation, she analyzed how the climate security agenda is being mobilized across multiple levels of government in the U.S. to develop community/military collaborations for adaptation. As a result of this research, she was awarded the highly competitive MIT Martin Fellowship for Sustainability as well as the Department of Urban Studies and Planning award for outstanding dissertation. Before beginning her research career, Dr. Teicher practiced architecture with Shape in Vancouver where she played a key role in developing cutting edge, sustainable residential and community projects. She also taught ecological design at Emily Carr University of Art and Design and contributed to strategies for transportation electrification with the Transportation Infrastructure and Public Space Lab at the University of British Columbia. She holds a Master of Architecture from UBC and a B.A. in sociology and anthropology from Swarthmore College. She has written extensively for peer-reviewed and industry publications regarding design and planning for sustainability and adaptation in the built environment.

“IPCC reports regularly conclude that nations are not on track to meet their commitments under the Paris Agreement. It is becoming increasingly clear that greenhouse gas emissions will overshoot the aspiration to limit warming to 1.5 or even 2 degrees Celsius. This means that whatever pathway emissions follow, adaptation will be imperative. In simple terms, adaptation means adjusting to current and projected climate change to reduce the negative consequences for communities and ecosystems. Around the world, governments at all levels, from cities, provinces and states, to nations and international consortiums are now working on adaptation initiatives as a counterpart to their previous mitigation work. With over a decade of experience, best practices are emerging; these include fully integrating climate planning into all government functions, foregrounding climate justice, fostering cross-sectoral and multi-level collaboration, and supporting implementation through financing and reporting. Case studies from leading jurisdictions in the U.S., Australia and Europe illustrate promising directions for adaptation planning. At the same time, some common pitfalls point to ways in which adaptation projects could be more robust. Highlighting some of the best practices and central dilemmas of adaptation planning, this talk will provide a grounding in how adaptation led by the public sector is rapidly evolving to address emerging risks.”

To register: [click here](#)

NEED HELP?

If you have any questions or want more information about this event, please contact uvraelderacademyevents@uvic.ca.