

Sezai Aydin

Sezai is an Evaluation Officer who has been with the NRC's Canadian Construction Materials Centre (CCMC) for over eight years. Prior to his tenure at the NRC, he gained experience in both consulting engineering and construction/contracting fields. Sezai holds a Master of Engineering degree in Civil Engineering. His work primarily focuses on code compliance evaluation and the development of technical guides for building envelope and structural products and systems in buildings.

Peter Collins

Peter is a Technical Officer in the Building Durability and Resiliency team in the Construction Research Center at the NRC. He has a Bachelor of Science in Chemistry from the University of Waterloo. Peter has 35 years of experience in evaluating the chemical and physical durability of products and systems in the building envelope. He specializes in spectroscopy, rheology, thermal analysis and the accelerating aging on construction products. Peter has authored over 130 research publications in refereed journals and conferences, client reports and trade magazines.

Elnaz Esmizadeh

Elnaz is a Research Officer of Construction Research Center at the NRC, specializing in the evaluation and long-term durability of construction materials. With a background in polymer engineering, her research focuses on the performance of building envelope systems, sealants, membranes, sustainable materials such as hemp-lime composites, and water ingress assessment. Her research centers on predicting service life and assessing environmental aging of construction materials, and durability of building envelope materials to design more sustainable and long-lasting buildings. She recently became an Adjunct Professor at the Department of Chemical Engineering at the University of Waterloo.

Alex Hayes

Alex is a Research Officer in Building Durability and Resiliency Team at Construction Research Center at the NRC. His research is focused on identifying adaptation and mitigation strategies to decrease the vulnerability of both buildings and occupants to the risks of climate related events, where he is currently working to determine what is needed to select climate resilient retrofit measures under a multi-hazard scenario. His research expertise also includes investigating the steady state effects of thermal bridges, conducting thermal performance simulations and analyzing the results of experimental measurements of high-performance glazing systems.

Esrat Jahan

Esrat is a Technical Officer in the Building Durability and Resiliency team at the NRC's Construction Research Center. Her role involves evaluating the chemical and physical durability of building envelope materials, with a focus on performance assessment, aging effects, and service life prediction. She has experience in thermal analysis, spectroscopy, rheology, and accelerated aging techniques for characterizing construction materials. She holds an M.A.Sc. in Mechanical Engineering from York University and a B.Sc. in Materials Science and Metallurgical Engineering from Bangladesh University of Engineering and Technology.

Michael A. Lacasse

Dr. Lacasse is a Senior Research Officer at the NRC and works within the Facades Systems and Products Team. He has undertaken both strategic and collaborative research related to building facades and fenestration, and is a widely recognized expert on the durability of building materials and components and moisture management of building enclosures. Over his 34-year career, he has played an important role in industry, having influenced code and standards development where his work has helped develop standards on durability and the service life of buildings and constructed assets.

Itzel Lopez-Carreon

Itzel has a background in chemistry and five years of experience as a Technical Officer within the Building Envelope Materials unit at the NRC's Construction Research Centre. There, her main role has been to assess the performance of various construction and infrastructure materials by monitoring changes in key properties upon accelerated and natural weathering. In 2023, Itzel began pursuing a M.A.Sc. in Materials Engineering at Carleton University on a part-time basis. Her current projects focus on evaluating the short- and long-term performance and durability of hempcrete insulation undergoing accelerated hygrothermal aging, and building sealants exposed to natural outdoor weathering.

Marzieh Riahinezhad

Dr. Marzieh Riahinezhad, PEng, PMP, is a Research Officer at the NRC's Construction Research Centre and Adjunct Professor in the Department of Civil Engineering at the University of Ottawa. She leads the Building Durability and Resiliency team, focusing on developing sustainable and resilient building envelope materials, evaluating their performance and durability, and predicting their service life. Additionally, she leads the Resilient Residential Retrofit theme under the Climate Resilient Built Environment Initiative at NRC, which aims to enhance climate resilience in existing residential buildings through retrofitting. Marzieh is the co-lead of CIB (International Council for Research and Innovation in Building and Construction) W080-Working Group on methods for service life prediction of building components and products.

Amir Sabziparvar

Amir holds a Ph.D. in Civil Engineering from the University of Ottawa (2024), with prior degrees in Civil and Environmental Engineering from Iran University of Science and Technology. His research focuses on bio-based and innovative building materials. He is currently a Postdoctoral Fellow jointly at the University of Ottawa and the NRC, investigating mould growth in building envelope materials from a water mobility perspective.

John Wells

John obtained his Doctor of Philosophy in Engineering from the University of Manitoba and is a Principal and Building Science Sector Lead at Crosier Kilgour, located in Winnipeg, Manitoba. John has acquired 35 years of experience in the investigation and rehabilitation of buildings across Canada, extending to our three coasts. In addition to being task group chair for NMCC's Resistance to Deterioration Committee, he is a Standing Committee member for CSA S478 Durable Buildings. John's research interests include heritage building restoration, climate change, and its impact on predictive durability modeling for buildings, both existing and future.