



The Canadian Society for Mechanical Engineering
A constituent society of the Engineering Institute of Canada

La Société Canadienne de génie mécanique
Une société constituante de l'Institut canadien des ingénieurs

NEWS COMMUNIQUÉ

23 April 2025

The Canadian Society for Mechanical Engineering (CSME), founded in 1970, is pleased to announce the winning recipients of its 2025 regular awards. These awards may be bestowed to members of the society for their outstanding contributions to specific areas of mechanical engineering in Canada.

In addition to the three previously announced 2025 technical award winners, seven exceptional engineers will be presented with regular society awards during the 27 May banquet of the 2025 CSME International Congress to be hosted on 26-28 May by the École de technologie supérieure, Montréal, QC.

Please consider attending the 2025 CSME International Congress to congratulate all of these exceptional award winners and network with colleagues: <https://www.csmecongress.org/>.

Clifford N. Downing Award

For “distinguished service to the CSME over many years.”



Jerzy Maciej Floryan, Ph.D., FCSME
University of Western Ontario, London, ON

Professor Jerzy M. Floryan is Professor at the Department of Mechanical and Materials Engineering at the University of Western Ontario. His research focuses on fluid mechanics, particularly in relation to the reduction of pressure losses associated with fluid transportation.

Professor Floryan has served the engineering community consistently and very well for many years. As CSME President from 2018 to 2020, he modernized its operations, stabilized and increased the membership base, established the organizational framework for the yearly Congresses and initiated the annual publication of the “Progress in Canadian Mechanical Engineering”. As a Canadian representative to the International Union of Theoretical and Applied Mechanics (IUTAM), he increased the Canadian role in this organization and brought the 23th International IUTAM Congress to Canada.

Professor Floryan is a Fellow of many societies and distinguished organizations, including the CSME, the ASME, the JSPS, the CAE, and the EIC, among others.

I.W. Smith Award

For “outstanding achievement in creative mechanical engineering within 10 years of PhD degree”



Cuiying Jian, Ph.D., MCSME
York University, Toronto, ON

Dr. Cuiying Jian is an Associate Professor in the Department of Mechanical Engineering at the Lassonde School of Engineering at York University. She is a trailblazer in the development of green applications for carbon-intensive materials in energy storage and wastewater treatment through laser-assisted manufacturing.

Dr. Jian has authored more than 30 publications and is the recipient of the 2024 Petro-Canada Emerging Innovator Award. She is committed to promoting equity, diversity, and inclusion (EDI) within the Lassonde community and the mechanical engineering profession. At York, Dr. Jian currently serves as the Graduate Attribute Lead for engineering accreditation and leads a project focusing on integrating EDI principles into the MECH curriculum. She also chairs the EDI Committee of the CSME.

2025 Industrial Innovation Award

For “outstanding contributions to innovations in industry within mechanical engineering in Canada”



Serge Lalonde
Pratt & Whitney, Longueuil, QC

Mr Serge Lalonde is a Pratt & Whitney Fellow and a leading figure in the field of failure analysis of aerospace components. Over the last 40 years, he has done or participated in more than a thousand failure analyses and materials behaviour cases. He has brought innovative methods to industry that have allowed accurate determination of the root causes of failures which have resulted in the development of new manufacturing techniques, more resilient alloys, and elevated safety standards within the aerospace industry.

Mr. Lalonde’s untiring dedication and passion to using advanced theoretical and experimental tools has positioned him as a vanguard in understanding the complex interactions between Design-Manufacturing Process-Material- and Service Properties, that are at the origin of failures in the very harsh working environment of an aircraft engine, making him a deserving inaugural recipient for CSME’s Industrial Innovation Award.

2025 CSME Fellows

For “excellence in mechanical engineering and significant contributions to the progress of the profession”



Martin Agelin-Chaab, Ph.D., FCSME (2025)
Ontario Tech University, Toronto, ON

Dr. Martin Agelin-Chaab is a Professor of Mechanical Engineering at Ontario Tech University and Chair of its Mechanical and Manufacturing Engineering Department. Martin has made significant scholarly contributions to thermofluids and energy systems with over 250 peer-reviewed contributions, including 6 book chapters and 7 patents pending. He has collaborated with industry partners to develop innovative thermal management and advanced sensor soiling mitigation strategies.

Martin has served as an associate editor for the Transactions of the Canadian Society for Mechanical Engineering (CSME) from 2015 to 2017 and since 2019. He also serves on the editorial board of multiple international journals. Finally, Martin served as the Chair of the Fluids Mechanics Engineering Technical Committee of the CSME from 2019 to 2023 and, in that capacity, co-organized several Fluid Mechanics symposia of the CSME International Congress and chaired many sessions.



Hamid Akbarzadeh, Ph.D., FCSME (2025)
McGill University, Montreal, QC

Professor Hamid Akbarzadeh is a Canada Research Chair and an Associate Professor in the Bioresource Engineering Department at McGill University. He is also the Director of Advanced Multifunctional and Multiphysics Metamaterials Lab (AM3L) at McGill and is serving as the Chair of CSME’s Technical Committee on Solid Mechanics.

Hamid’s research and training program at AM3L is aligned with systematic design, multiscale multiphysical modeling, and 3D printing of reprogrammable and smart multifunctional metamaterials and metastructures. To date, his contributions have led to 8 patents (application or provisional) and reports of inventions, and 140 articles published in high-impact journals, such as Advanced Materials, Advanced Functional Materials, Advanced Science, Nature Communications, ACS Nano, Nano Energy, and Energy Storage Materials.



Tobin Filleter, Ph.D., FCSME (2025)
University of Toronto, Toronto, ON

Dr. Tobin Filleter is currently a Professor in the Department of Mechanical & Industrial Engineering (MIE) at the University of Toronto. Tobin received a B.Sc. in Engineering Physics from Queen's University (2003) and PhD in Physics from McGill University (2009). Prior to joining MIE, he was a postdoctoral research fellow in the Department of Mechanical Engineering at Northwestern University (2009-2012).

Professor Filleter's research interests are in nanomechanics of materials. Specific areas of research include nanotribology, mechanics of 2D materials, nanocomposites, and non-destructive testing. He has authored papers in many top international journals including Nature, Science, Nature Materials, Science Advances, and Nature Communications. He is the recipient of several major awards including the CSME I.W. Smith Award and CSME Solid Mechanics Medal, the Erwin Edward Hart Professorship, NSERC Synergy Award, and Ontario Early Researcher Award.



John Wen, Ph.D., FCSME (2025)
University of Waterloo, Waterloo, ON

Dr. John Z. Wen is a Professor in the Department of Mechanical and Mechatronics Engineering at the University of Waterloo, and the Columbiad Space Research Chair for In-Situ Resource Utilization & Stewardship. John is an internationally known researcher in the areas of fabrication and characterization of nanoenergetics, soot formation and combustion-synthesized carbon and metallic nanostructures and their applications in many fields.

John has trained more than 60 highly qualified research personnel in renewable energy system design, nanomaterial synthesis and characterization, electrochemical reactor operation and optimization, combustion theory and numerical modeling. He has developed technologies on novel methods and devices for the fabrication of nano-energetic composites and additive manufacturing of metal fuels for space propulsion.

A registered professional engineer in Ontario, Dr. Wen is an associate editor to two scientific journals and serves as Chair of CSME's Technical Committee on Microtechnology and Nanotechnology.