



**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**

The Canadian Society for Mechanical Engineering (CSME), founded in 1970, is pleased to announce the winning recipients of its 2024 technical awards. These awards may be bestowed biannually to members of the society for their outstanding contributions to specific areas of mechanical engineering in Canada.

The following three exceptional professionals will be presented with their medals on 28 May at the 2024 CSME International Congress to be hosted on 26-29 May by the MIE Department of the University of Toronto, ON. Each winner will be presenting a plenary lecture at the Congress.

Please consider attending the 2024 CSME International Congress to congratulate these exceptional winners and attend their lectures: <https://www.csmecongress.org/>.

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### **CSME Fluid Mechanics Medal**

*For “exceptional research and innovation contributions to the field of fluid mechanics in Canada”*



**Ian Frigaard**, Ph.D., MCSME

Professor, Mechanical Engineering, University of British Columbia, BC

Dr. Ian Frigaard, of the Department of Mechanical Engineering at the University of British Columbia, is a world-renowned expert on non-Newtonian fluid mechanics and the foremost expert on the fluid mechanics of oil well cementing. He has made seminal contributions to the understanding of viscoplastic fluids, which behave uniquely under stress, and his work has helped to reduce greenhouse gas emissions from the oil and gas sector by improving cementing processes that are essential for secure and sustainable operations. Dr. Frigaard has also trained nearly 100 postdoctoral fellows and graduate students, initiated two successful workshop series on complex fluids, and served as President of two national professional societies (CAIMS and CSR), in addition to holding many other offices. With a prolific publication record, his highly-cited work has advanced both fundamental understanding and practical applications, advancing the field of fluid mechanics and contributing to safer industrial practices.



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## **CSME Manufacturing Medal**

*For “exceptional research and innovation contributions to the field of manufacturing in Canada”*



**Mohammad Jahazi**, Ph.D., MCSME

Professor, École de Technologie Supérieure, Montréal, QC

Dr. Mohammad Jahazi, a distinguished Professor and Industrial Chair at École de technologie supérieure (ÉTS) in Montreal, is a leading figure in the field of advanced manufacturing. Renowned for his research in high-temperature deformation of high strength alloys used in transportation and energy industries, Dr. Jahazi has long standing experience in the practical application of innovative manufacturing technologies, including Friction Stir Welding and Linear Friction Welding. His collaborative efforts with industry giants such as PWC, SAFRAN Landing Systems, as well as a large number of SMEs including Finkl Steel, DKSpec, Verbom, and DBMReflex, have resulted in the development of robust, high-performance materials and methods elevating safety and efficiency standards within the energy and transportation industries.

Dr. Jahazi's unwavering dedication to bridging theory with practice has positioned him as a vanguard in advancing the frontiers of manufacturing, making him a deserving candidate for the CSME Manufacturing Medal.

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## **CSME Solid Mechanics Medal**

*For “exceptional research and innovation contributions to the field of solid mechanics in Canada”*



**Zheng Hong (George) Zhu, Ph.D., FCSME**

Professor, York University, Toronto, ON

Dr. Zhu is a Professor of Mechanical Engineering at York University. He is a visionary researcher in solid mechanics, combining fundamental engineering principles with impactful applications and education. His innovative work has gained international recognition, such as the transformative nodal position finite element method and high-fidelity multi-physics modeling in computational mechanics. Dr. Zhu's expertise extends to micromechanics and carbon-nanotube multifunctional carbon fibre composites. Beyond this, Dr. Zhu has led two notable satellite missions. He is a prolific author, with over 200 peer-reviewed journal articles, 163 conference papers, and five book chapters to his name.

Dr. Zhu is recognized as an Academician of International Academy of Astronautics and College Member of Royal Society of Canada. He holds fellowships with Canadian Academy of Engineering, Engineering Institute of Canada, Canadian Society for Mechanical Engineering, American Society of Mechanical Engineers, and American Institute of Aeronautics and Astronautics.