



Canadian Society for Chemical Engineering
Société canadienne de génie chimique

CSChE Best PhD Dissertation Award

This award recognizes and outstanding Canadian doctoral dissertation that contributes to the advancement of the field of chemical engineering.

Deadline

March 1 every year

Sponsor

CSChE

Award

- Framed certificates for the first and second prizes

Nomination Requirements

- The nominee's thesis work must have been completed in a graduate chemical engineering program of a Canadian university.
- The nominated thesis must have been successfully defended by the nominee as well as accepted by the graduate program in the calendar year prior to when the award is given.
- The nominee must
 - be a CSChE member at the time of nomination.
 - have been a CSChE member in the last two years of their doctoral program.
 - have made at least one oral presentation at a Canadian Chemical Engineering Conference
- A nomination package must be submitted electronically through [ScholarOne](#). The package should include the following:
 - **Nomination letter** (maximum 3 pages) by the nominator including a concise description of the nominee's theoretical as well as practical contributions made in the dissertation. This is particularly important for a manuscript-based dissertation where multiple authors may have contributed to the work.
 - **Curriculum Vitae** (maximum 2 pages) in which the nominee's research contributions are listed.
 - **Synopsis of the dissertation** (maximum 2 pages).
 - **Official document confirming dissertation completion date** (issued by the department, graduate school, or faculty where the nominee completed their doctoral program).
 - **Copies of CSChE Membership invoices** confirming the nominee's CSChE membership at the time of nomination as well as in the last two years of their doctoral program.
 - **Details of nominee's oral presentation** in the past at a Canadian Chemical Engineering Conference.
Please do not attach nominee's thesis. A nomination with an attached thesis will be disqualified.

Notes

Each prize winner will be required to register and give a keynote presentation at the Canadian Chemical Engineering Conference in which the award will be given.

A doctoral supervisor is limited to a single nomination per year.

Self-nominations will not be accepted.

Nominations for this award are valid for one year only.

Selection Committee

- CSChE Director of Awards as non-voting Chair
- CSChE Director of Student Affairs
- CSChE Director of Publications
- One other representative from the CSChE Board of Directors

Notes

In selecting the award winner, the committee will consider

- Scientific and technical quality of the research,
- Contributions to the advancement of chemical engineering,
- Originality of the research, and
- Clarity of presentation.

The award shall be presented annually unless

- the committee considers that no suitable candidate is nominated, or
- less than two nominations are received

List of Recipients

2021 Winners

First place

Charles Bruel, MCIC

Centre d'études des procédés chimiques du Québec (CÉPROCQ)

@bruel_charles www.linkedin.com/in/cbruel



Dr. Charles Bruel is a post-doctoral fellow at the Centre d'études des procédés chimiques du Québec (CÉPROCQ) since december 2020. He has an expertise in (bio)materials, nanoparticles, composites, and surface characterization methods. He currently works on the optimization and scale-up of a biorefinery process. Dr. Bruel holds a Ph.D. and a M.A.Sc. in chemical engineering from Polytechnique Montreal (QC, Canada), and an engineering degree from the École polytechnique (Palaiseau, France). He is a FRQNT and Mitacs scholar. He has published 10 articles in peer-reviewed journals since 2016, 8 of which during his Ph.D. (2017-2020). He was awarded 7 scientific communication prizes and was a 2019 Canadian finalist of the french-speaking 3-minute thesis competition MT180 organized by ACFAS. His thesis was recognized as the best Ph.D. dissertation from 2020 by the chemical engineering department of Polytechnique Montreal.

Second place

Fahad Al-Amin Chowdhury, MCIC

University of Ottawa

linkedin.com/in/fahad-chowdhury <https://uniweb.uottawa.ca/members/138?embed=2>



Dr. Fahad Chowdhury is a Research Engineer-in-Training with NOVA Chemicals based at the Centre for Applied Research in Calgary, Alberta. He obtained a double bachelor's degree in chemical engineering and computer technology, followed by a doctoral degree in chemical engineering at the University of Ottawa. He completed his PhD thesis under the co-supervision of Professors Poupak Mehrani and Andrew Sowinski on the topic of triboelectric charging to observe charge transfer behaviours of insulator particles and to develop a CFD model for charge generation in gas-solid fluidized beds. Fahad's research was first supported by Univation Technologies through the Queen Elizabeth II Graduate Scholarship in Science and Technology, followed by the Ontario Graduate Scholarship, and finally the Postgraduate Scholarship from the Natural Sciences and Engineering Research Council of Canada (NSERC).

The research was conducted in collaboration with Professor Alberto Passalacqua and his CFD research group at Iowa State University, USA, where Fahad attended as a visiting scholar in two occasions thanks to the International

Experience Scholarship from the University of Ottawa and the Globalink Research Award from Mitacs. At the University of Ottawa, Fahad also served as the President of the Chemical and Biological Engineering Graduate Student Association (CBEGSA).

2020 Winners

First place

Nadia Shardt, MCIC
University of Alberta



Dr. Nadia Shardt studied chemical engineering for her undergraduate and doctoral degrees at the University of Alberta. She completed her PhD thesis under the supervision of Prof. Janet Elliott on the topic of fundamental thermodynamics to describe diverse processes in engineering and other applications. In addition, Nadia is interested in applying engineering principles to the design of cryopreservation protocols for clinical use. During her graduate studies, she received an Alexander Graham Bell Canada Graduate scholarship from the Natural Sciences and Engineering Research Council of Canada (NSERC), an Alberta Innovates Graduate Student Scholarship, and a TW Fraser and Shirley Russell Teaching Fellowship. Currently, she is investigating ice nucleation to improve our understanding of the atmosphere in the group of Prof. Ulrike Lohmann at ETH Zurich, funded in part by an NSERC postdoctoral fellowship.

Second place

Nariman Yousefi, MCIC
McGill University