



Canadian Society for Chemical Engineering | *For Our Future*
Société canadienne de génie chimique | *Pour notre avenir*

CSCHE Best Master's Thesis Award

This award recognizes an outstanding Canadian Master's thesis 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.
 - be completing their first master's degree.
 - have been a CSCHE member in the last year of their Master's program.
 - have made at least one oral or poster presentation at a Canadian Chemical Engineering Conference.
- The nominator must
 - be a faculty member, co-supervisor, an individual from the nominee's thesis committee, or department chair.

A nomination package must be submitted electronically through [Awards Force](#). 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 thesis. This is particularly important for a manuscript-based thesis where multiple authors may have contributed to the work.
- **Curriculum Vitae** (maximum 2 pages) in which the nominee's research contributions are listed.
 - Specify how many years of graduate school has been completed (no more than 3 years of graduate school years will be accepted to ensure that all applicants have similar academic training).
- **Synopsis of the thesis** (maximum 2 pages).
- **Official document confirming thesis completion date** (issued by the department, graduate school, or faculty where the nominee completed their Master's program).
- **Copies of CSCHE Membership invoices** confirming the nominee's CSCHE membership at the time of nomination as well as in the last year of their Master's program.

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 Master's 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.

List of Recipients

2024 Winners

First place

Joanne Woloszyn, MCIC
University of Ottawa
[LinkedIn](#) [Website](#)



Joanne Woloszyn completed a CO-OP dual fast-track degree in Biotechnology to obtain a Bachelor of Applied Science in Chemical Engineering and an Honours Bachelor of Science in Biochemistry at the University of Ottawa (Ottawa, Canada) in 2021. During this time, Joanne pursued various academic and government research internships in the fields of synthetic biology and mineral processing and characterization at the Max Planck Institute of Colloids and Interfaces (Potsdam, Germany), McGill University (Montréal, Canada), and Natural Resources Canada (Ottawa, Canada). In 2023, Joanne completed a Master of Applied Science in Chemical Engineering at the University of Ottawa under the co-supervision of Prof. Clémence Fauteux-Lefebvre and Prof. R. Tom Baker. Joanne's master's thesis focused on the valorization of waste biomass through direct chemical conversion to produce levulinic acid and levulinate esters. Her master's research specifically involved various reaction and separation studies aimed at analyzing the kinetics of the complex reaction pathway and exploring process parameters that could impact future scale-up. Joanne is currently continuing her graduate studies as a PhD student under the supervision of Prof. Clémence Fauteux-Lefebvre. She is investigating kinetic and mass transfer phenomena for continuous flow scaled multiphase catalytic reactor design for pharmaceutical applications.

Second place

Alireza Lotfollahzade Moghaddam, MCIC
Concordia University
[LinkedIn](#) [Website](#) [Energy Transition Lab Website](#) [Google Scholar](#)



Alireza Lotfollahzade Moghaddam received a Bachelor's degree in Chemical Engineering from the Sharif University of Technology, Tehran, Iran, as a top student with the Sparkling Talent Quota award. Alireza holds a Master of Applied Science (MASc) Degree in Chemical Engineering from Concordia University, under the supervision of Prof. Melanie Hazlett, during which he contributed to advancing the knowledge in Chemical Engineering, with one review paper and two research publications as first author. Alireza's master's research focused on dimethyl ethyl production via methanol dehydration. Specifically, he has explored zeolite materials as a stable solid acid catalyst to obtain the highest conversion and continuous process. Alireza's current research focuses on carbon (CO₂) capture by adsorption at Svante and low-emission hydrogen production at the University of Alberta, under the supervision of Mohd Adnan Khan, as he always looks forward to challenging opportunities to further enhance his theoretical and practical experience toward a cleaner environment.

2023 Winners

No winners

2022 Winners

First place

Steady J. Coombs, MCIC

Queen's University

[Twitter](#) [LinkedIn](#)



Steady Coombs received a Bachelor's degree in Chemical Engineering from Queen's University of Kingston, Ontario, during which she pursued a professional internship at DuPont research facility. Steady holds a Master of Applied Science (MASC) Degree in Chemical Engineering from Queen's University, and is now pursuing her PhD, during which she contributed to the advancement of the body of knowledge in Chemical Engineering, with six (6) research publications to her name.

Steady's master's research, under the supervision of Dr. Alan Jeffrey Giacomini, focused on the connection between macromolecular structure and melt elasticity. Specifically, she has explored how macromolecular branching affects melt elasticity, with a special focus on melt complex viscosity (storage and loss moduli). Steady's current research focuses on the rheology of polymers in confinement (microfluidics). While continuing her graduate studies in Dr. Giacomini's group as a PhD student, Steady founded her own consulting firm, *Coombs & Associates*, to assist in expert witness support services in cases involving patent law, intellectual property, and rheology.

Second place

No award given in 2022.

2021 Winners

First place

Oyejide Damilola Oyewunmi, MCIC

Concordia University

[Twitter](#) [LinkedIn](#) [Google Scholar](#)



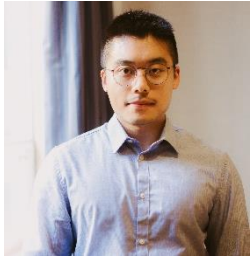
Oyejide Damilola Oyewunmi received a Bachelor's degree in Chemical Engineering from the University of Lagos, Nigeria, during which he interned and acquired valuable industrial experience at the Lagos State Environmental Protection Agency (EPA), in Nigeria. He holds a Master of Applied Science (MASC.) Degree in Chemical Engineering from Concordia University, Montreal, Canada, during which he contributed to the advancement of the body of knowledge in Chemical Engineering, with four (4) research publications to his name.

Oyejide's graduate research, under the supervision of Dr. Sana Jahanshahi Anbuhi, focused on the fabrication of ready-to-use analytical devices for water quality monitoring, environmental monitoring, on-site detection of analytes, point-of-care (POC) diagnostics and biosensing. Oyejide is a certified Lean Six Sigma Black Belt expert, in addition to other process and laboratory safety certifications in his name. He is available to work with organizations and add value as a Research Engineer, Process Engineer, Quality Engineer, Production Engineer, and other relevant engineering roles.

Second place

Zhu Hao Yu, MCIC
University of Toronto

[Personal LinkedIn](#) [Department's LinkedIn](#)



Zhu Hao Yu completed a Bachelor of Applied Science degree and a Master of Applied Science degree in Chemical Engineering at the University of Toronto. Zhu Hao's graduate research under the supervision of Elodie Passeport focused on evaluating the potential of using duckweed, algae, and sympatric microbes to remove benzotriazole from stormwater. Zhu Hao's past research experience at the University of Toronto's Surface Water Research Group, which was also under the supervision of Elodie Passeport, includes treatment of phosphorus in stormwater runoff using bioretention cells, and the removal of personal care products using algae. Zhu Hao is currently working as an Environmental Modeler at Ecometrix Inc.

2020 Winners

First place

Anya Filina, MCIC
McGill University, Montreal, QC

[LinkedIn](#)



Anya Filina received a Bachelor's degree in Materials Engineering and a Master in Chemical Engineering from McGill University. As an undergraduate researcher, she studied hydrogel materials for biomedical and environmental applications at the Biointerfaces Laboratory and Biocolloids and Surfaces research group at McGill University. Anya's graduate research under the supervision of Nathalie Tufenkji focused on antimicrobial graphene oxide hydrogels for water treatment. Her past experience also includes two industrial internships involving surface treatment technologies and environmental design in the aerospace sector. Anya Filina is currently working as a materials scientist in the Bioproducts Innovation Centre of Excellence at FPIInnovations.

Second place

Debaprasad Dutta, MCIC
Ryerson University, Toronto, ON

[LinkedIn](#)



Debaprasad Dutta is a second year PhD student in the department of chemical engineering at Ryerson University, Toronto. His doctoral research is focussed on the development and application of intelligent control technologies for chemical engineering processes. He holds his Master of Applied Science (MASC) degree from Ryerson University. During his MASC, Debaprasad obtained the highest achievable academic grade point average in all mathematical courses and co-authored the article "An optimal feedback control strategy for nonlinear, distributed-parameter processes" that demonstrates the developed controller's prowess in drastically subduing computational intensities/challenges in real-time application. Besides, he has enthusiastically participated in different conferences throughout Canada and presented his research novelty and proficiencies. With his academic excellencies, Debaprasad became the second place winner of the "2020 CSChE Best Master's Thesis Award". As a teaching assistant at Ryerson University, he prepared and delivered tutorial sessions, in addition to preparing and conducting laboratory practices for undergraduate chemical engineering courses. Before joining his master's in Canada, Debaprasad gained two years' industrial experience in process engineering and operations management in one of the largest manufacturing organizations in India.