

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.
  - 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

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.
- 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, or
- less than two nominations are received

# List of Recipients

### 2022 Winners

## First place

Steacy J. Coombs, MCIC Queen's University Twitter LinkedIn



Steacy 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. Steacy 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.

Steacy's master's research, under the supervision of Dr. Alan Jeffrey Giacomin, 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). Steacy's current research focuses on the rheology of polymers in confinement (microfluidics). While continuing her graduate studies in Dr. Giacomin's group as a PhD student, Steacy 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

https://twitter.com/OyejideOyewunmi www.linkedin.com/in/oyejide-oyewunmi https://scholar.google.com/citations?user=xHNoSGoAAAAJ&hl=en



Oyejide Damilola Oyewunmi received a Bachelor's degree in Chemical Engineering from the University of Lagos, Nigeria, during which he Interned and acquire 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: https://www.linkedin.com/in/zhuhaoericyu/

Department's LinkedIn: https://www.linkedin.com/in/chem-eng-at-uoft-9a66ab14/



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

https://www.linkedin.com/in/anya-filina-612a2081/



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 FPInnovations.

## Second place

Debaprasad Dutta, MCIC Ryerson University, Toronto, ON

http://www.linkedin.com/in/debaprasad-dutta-334981149



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.