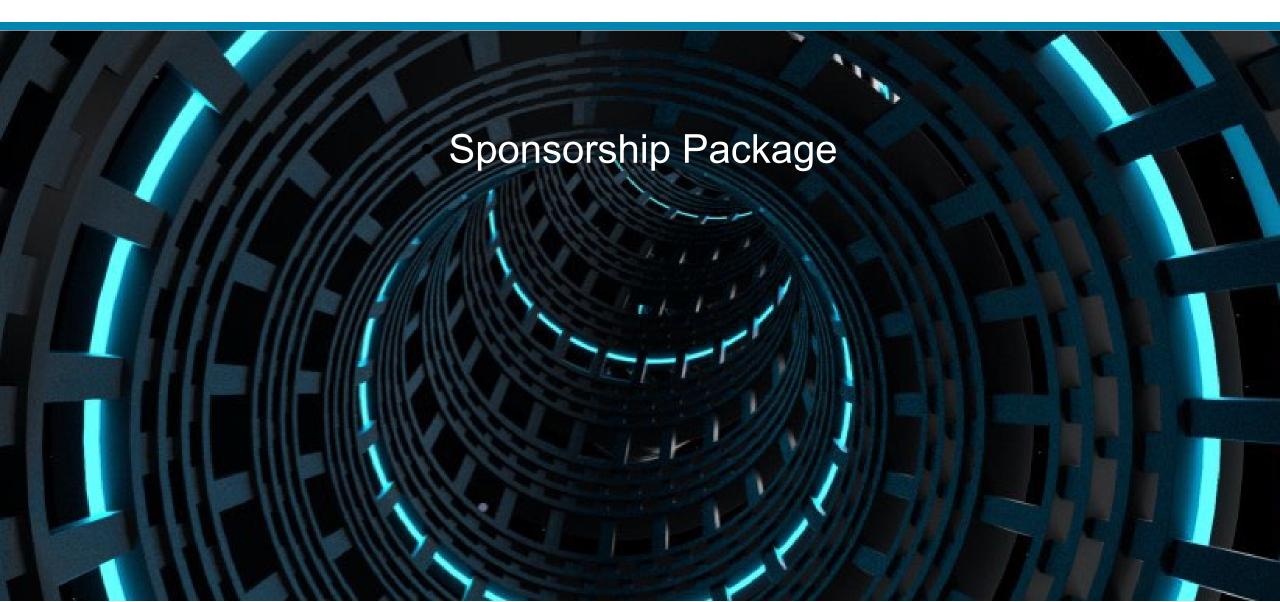


The INCOSE Canada Chapter Systems Engineering Student Challenge 2024







Message from the President



Driven by an increasingly competitive market, shrinking resources, and by the increasing pace of technology, the products and services that we use and rely on in Canada today are becoming more complex. The partitioning of engineering responsibilities along traditional lines are no longer fit for purpose. We believe that Systems Engineering is a key enabler to master that increasing complexity and we are committed to be the communal bedrock of practitioners of Systems Engineering within Canada.



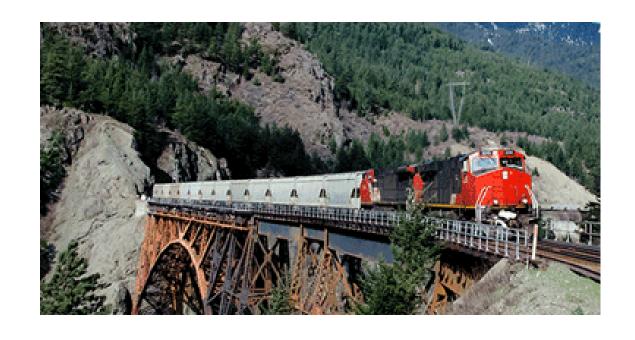
No mission is more important than to enable the future engineers of Canadian industry, commerce, government and defense by broadening their perspective to apply systems thinking, engineering and science to the problems of tomorrow.

That is why we are very excited to launch the inaugural **INCOSE Canada Chapter Systems Engineering Student Challenge** which will not only challenge students to apply Systems
Engineering to their projects but also give practical experience on the benefits of Systems
Engineering in their future careers.



Who We Are





We are the elected board of Canada chapter of International Council of Systems Engineering (INCOSE), a not-for-profit membership organization founded to develop and disseminate the transdisciplinary principles and practices that enable the realization of successful systems.



Our Vision and Mission



The **vision** is to become the key enabler for the Systems Engineering community within Canada to network, collaborate, share ideas and experience, and for dissemination of Systems Engineering knowledge and best practice.

Our **mission** is to enable our members to address complex societal and technical challenges confronting Canada, Canadian local communities and Canada Chapter members by developing, promoting, and applying systems engineering and systems approaches.



Purpose of the Challenge



The INCOSE Canada Chapter Systems Engineering Student Challenge is a premier national competition in systems engineering. Held annually, this event unites the enthusiastic and expanding community of student across Canada.

The challenge connects these students with industry and the INCOSE Canada Chapter providing a focal point for the dissemination of systems engineering best practice thereby raising the awareness and understanding for systems engineering applied not only to their final year projects but also to their future careers.



What Registrants can Expect



- 1. Challenge yourself and your project team to adopt a Systems Engineering approach to your final year engineering project.
- 2. Expose your CV to participating sponsors who are looking for high value candidates.
- 3. Regular 1 hr seminars by experienced SEs and industry leaders introducing SE best practices.
- 4. Present the application of SE to your project to peers and judges.
- 5. Judges award cash prizes to outstanding applications of systems engineering.

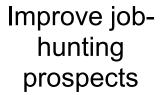


Value to Registrants





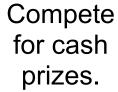






Gain national and international recognition.







Learn and apply
Systems
Engineering.



Applicant Eligibility



Students: Final year undergraduates enrolled in Canadian educational institutes.

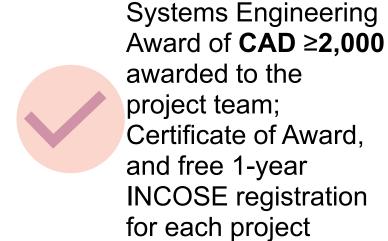
Students in Fields of Study: Industrial, Digital, Operational Science, Mechanical, Aerospace, Electrical, Computer, Software, or Biomedical Engineering.

Students with Project Themes: Robotics and Intelligent Systems, Transportation, Aeronautics, Mechatronics, Embedded Systems, Biomedical Systems, or Software Systems.



Awards





INCOSE Canada

Chapter Best Use of



Second Place INCOSE Canada Chapter Best Use of Systems **Engineering Award of** CAD ≥1,000 awarded to the project team; Certificate of Award and free 1-year **INCOSE** registration for each project member. Total value of ~1,420* CAD.



For 3 best runner ups projects:

Certificate of
Honorable Mention, and free 1-year
INCOSE registration for each member of recipient of award.

Total value of ~420*
CAD for each runner up project.

of ~2,420* CAD.

member. Total value

^{*} Assuming 6 registrants per project



What Sponsors can Expect



Depending on the degree of sponsorship, sponsors can expect:

- 1. Interaction with Engineering undergraduates who are competitive, innovative and who enjoy challenges early in their final academic year.
- 2. Access to a pool of registrant CVs.
- 3. Present SE best practices to registrants during regular 1 hr seminars (provisionally once every 2 weeks).
- 4. Regular communication campaigns highlighting sponsorship involvement
- 5. Be on the panel of judges to judge submissions.



Value to Sponsors







Access to high value engineering students



Grow awareness within universities across Canada



Continue to improve image as a company of choice



Nurture a growing community of Systems Engineers



Timeline



August 2024

Sponsorship window closes



Registration opens 2nd Registration closes 15th

Regular Seminars

November 2024

Submission opens 18th Submission closes 25th

December 2024

Shortlisted candidates present 9th

Finalist ceremony 18th





Outreach



Of the 16 universities who are members of Engineering Deans Canada the INCOSE Canada Chapter board has the following expectations for the inaugural year:

- Participation of 50% of universities
- Each participating university fields 2 project teams on average
- Each project team has 4 registrants on average.

Expect 16 represented teams and 40 registrants in 2024.



Resume Bank



Depending on the degree of sponsorship, sponsors can expect:

- The INCOSE Canada Chapter will collect resumes of all registrants and access to registrant resumes from across Canada will be given to top tier sponsors.
- 2. Registrant contact information will be made available for sponsors to then use to target registrants that are a good fit for job openings.



Presentation and Training Opportunities



Depending on the degree of sponsorship, sponsors can expect:

- 1. Present SE best practices to registrants during regular 1 hr seminars (provisionally once every 2 weeks).
- 2. Registrants may not be familiar with Systems Engineering as a domain and will appreciate webinars presented by industry leaders on the subject.
- 3. Registrants will also appreciate industry leaders sharing successful application of systems engineering, providing the opportunity to present to registrants the sponsor's industry, operations and culture.



Challenge Roadmap



The INCOSE Canada Chapter Systems Engineering Student Challenge is an annual event inaugurated in 2024.

- 1. 2024 Target final year undergrads. Build operational experience, grow recognition within universities and build sponsorship base.
- 2025 Target final year undergrads. Final ceremony to occur inperson (location dependent on geographic spread of registrants from 2024).
- 3. 2026 Target final year undergrads. Include in-person regional semi-finalists and in-person final ceremony.
- 4. 2027 Expand to include master grads to compete in another tier.



Sponsorship Tiers



	Bronze 500 CAD	Silver# 1000 CAD	Gold## 2500 CAD
Name included in communications	X	X	X
Logo included in communications		X	X
Resume Access		X	X
Promoted Job Openings			X
Presentation opportunities			X
Included in shortlist judge panel	X	X	X
Included in final judge panel		X	X
Presentation of awards at final ceremony			X

3 Silver Tier sponsors available

Only 1 Gold Tier sponsor available



Budget



Conservative assumption of 6 registrants per awarded project.

Total Cash Awards	3,000 CAD
INCOSE Membership (50 USD ea.)	2,100 CAD
Postage (3 CAD ea.)	90 CAD
Total	5,190 CAD

Any surplus in funds from sponsorship will top up the total cash awards



Meet The Team



President TERRY FITZGERALD



Past President RAY BARTON



Vice-President **TONY WU**



Technical Program Director IVAN RODRIGUES



Secretary PENGZHOU LU



Communication
Director
ARMAN NIKKHAH



Membership Director and Treasurer IVAN TAYLOR



WEBMASTER
STEPHANE LACRAMPE





Contact Us



To ask questions or to register as a sponsor send email to Canada@incose.net with

- 1. Your intention to sponsor the Challenge at which tier.
- 2. Name and address of Sponsoring company.
- 3. Name and contact person of point of contact.



https://www.incose.org/communities/chapters/americas-sector/canada