

A photograph of three students in a workshop or classroom setting. In the foreground, a young man in a light grey t-shirt and blue jeans is crouching, looking into a large black bag. Next to him, a young woman in a grey hoodie and blue jeans is also crouching, looking into the same bag. Behind her, another student wearing a pink respirator mask and blue gloves is reaching into the bag. In the background, another student in a dark hoodie and jeans is standing, looking away. The floor is made of large tiles, and there are various boxes and materials scattered around. The text "STUDENT FUNDING." is overlaid in large white letters, flanked by two horizontal yellow bars.

# STUDENT FUNDING.

A horizontal yellow bar.

2016 - 2017







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# Introduction

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Diverse co-curricular opportunities are offered to engineering students to enhance their university experiences. Students can participate in a variety of clubs including design, sport and recreation, cultural, arts and performance, conferences, professional development, departmental/disciplinary, and humanitarian. This report highlights the student clubs' accomplishments for the 2016 - 2017 year. The Centralized Process for Student Initiative Funding (CPSIF) reviewed and approved funds for 95 student clubs for the 2016 - 2017 year for a total of \$360,173.84. The funding breakdown is as follows:

Number of Applications: 100

**Number Approved: 95**

Department of Materials Science & Engineering:	\$11,227.00
Department of Mechanical & Industrial Engineering:	\$80,400.00
Department of Chemical Engineering & Applied Chemistry:	\$28,830.00
Department of Civil & Mineral Engineering:	\$12,000.00
Division of Engineering Science:	\$22,615.00
The Edward S. Rogers Sr. Department of Electrical & Computer Engineering:	\$40,140.00
Engineering Alumni Association:	\$99,980.92
Engineering Society:	\$41,460.00
Institute of Biomaterials and Biomedical Engineering:	\$16,620.92
You're Next Career Network:	\$6,900.00
<b>Total:</b>	<b>\$360,173.84</b>

As of the 2016 - 2017 year, the funding process was streamlined by eliminating in-person presentation pitches that were scheduled over the course of a two day period and reducing the three annual funding cycles to one in the fall. In replacement of the presentation pitches, a more comprehensive application form was introduced and revised with questions which were frequently asked during the pitches. To ensure a smooth transition in these changes, announcements were made across multiple communication mediums, including digital display screens and student newsletters.

*Overall, in 2016 - 2017, the Faculty of Applied Science & Engineering (Alumni , Dean's Office, Institute of Biomaterials & Biomedical Engineering, Civil & Mineral Engineering, Chemical Engineering & Applied Chemistry, Engineering Science, Materials Science & Engineering, Mechanical & Industrial Engineering, Engineering Society, and You're Next Career Network) supported the student experience in the amount of \$360,173.84.*



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# American Society of Heating, Refrigerating and Air-Conditioning (ASHRAE)

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## Total Amount of Funding Awarded: \$300

The members of ASHRAE U of T would like to graciously thank all the departments for funding the 2016 - 2017 year including Department of MIE, Department of Civil and Mineral Engineering, Engineering Alumni Association, and the Engineering Society. The funds were used to facilitate two club sponsored events.

The first event was called "ASHRAE in the Consulting Business: Presented by Smith and Anderson". We had presenters from Smith and Anderson at the University to discuss ASHRAE in the consulting business. ASHRAE is used extensively in the consulting industry for a great variety of reasons, one of which is standards. ASHRAE's standards are used by most, if not all, consultants in the HVAC&R industry. ASHRAE also publishes a number of educational resources, including ASHRAE Fundamentals. In this talk members learned how standards and educational resources are used in the consulting industry and how they can take advantage of the resources available to prepare for a future career in the HVAC&R consulting business. To attract students to this important networking event, funds were used to cater the event with Subway sandwiches and refreshments, and to provide the presenters from Smith and Anderson with Starbucks gift cards as speaker gifts.

The second event where funds were allocated was the ASHRAE Building Science Lunch and Learn. The topic chosen by attendees was a webinar provided by RDH Building Science Laboratories on Building Glazing and Energy Performance. This event was advertised to and attended by ASHRAE members across a variety of departments. To attract interest, we catered the event with pizza and refreshments. We consider the event a success for fostering student education in the industry, as ASHRAE energy standards are currently used by the Ontario Building Code for new buildings. By reducing building energy use we can greatly cut down on GHG emissions in Toronto.



# Association of Leadership in Chemical Engineering (ALChemE)



## Total Amount of Funding Awarded: \$1,875

The Association of Leadership in Chemical Engineering (hereafter referred to as ALChemE) provides a platform where students are able to develop their professional leadership competencies, by providing a hands on experience through planning, organizing, and executing events, as well as bringing new initiatives into the chemical engineering community. For the 2016-2017 year, ALChemE has received a total of \$1875 in funding. The break down is as follows: \$375 from Engineering Society, \$500 from Engineering Alumni Association, and \$1000 from the Department of Chemical Engineering and Applied Chemistry. Such funding was crucial for the existence of ALChemE, as it allowed all our members to learn how to plan and budget successful events. Furthermore, it benefitted the engineering students at U of T, because they were able to take away valuable information.



Terry Fox Run – Kenny Wei, Andrew Kostruba, Peter Murphy, Katie Dritsas, Brittany Green, Olga Misic, Fletcher Han

The funding received was used to execute events that are of benefit to the U of T engineering community. Some of our major events include: Alumni Breakfast, Ace the Interview and Research Days. Alumni Breakfast is an event that brings together Alumni and Engineering Students at U of T in a casual environment. It allows for students to have a networking opportunity. Students are able to gain information regarding work in a specific industry of their interest, and are also able to seek advice. This event is enjoyed by both our alumni and by our students.

Ace the Interview is an event for which ALChemE prepared five mock job positions, which were given to participating students in advance. For the positions of the student's choice they were to prepare and submit a resume and cover letter in advance. On the day of the event students underwent multiple rounds of interviews with various alumni, followed by feedback sessions. This practice allows a student to gain experience in attending interviews and learn how to act on the feedback received. Food was also provided during this event.

Research Days is an event that U of T students enjoy. Students attend these events to gain knowledge about what kind of research professors are currently working on in the Faculty. At the end, there is also a networking opportunity where students are able to speak to professors with respects to the professors' research. These events provide an opportunity for students to contact professors for summer research positions.

ALChemE fosters community within Skule by providing a stepping-stone for students to get involved in other facets of the University. We've had numerous club members graduate from ALChemE and get



involved in other organizations like ChemE Car, CSChE, and EAA. We also love pairing up with student organizations like CSChE, Engineering Toastmasters, and iLead to host events and share ideas. The club promotes community beyond the walls of Skule by often getting involved with local charities (ex. our annual Terry Fox Run) and U of T's Alumni Association. We think it is important to involve as many people as possible in leadership education as it benefits our members in their experiences after graduation.

Alumni play an essential role in ALChemE events. We had 5 alumni participate in our Alumni Breakfast as participants. For Ace the Interviews, we had approximately 8 alumni acting as interviewers.



Networking Tutorial



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# Biomedical Engineering Student Association (BESA)

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## Total Amount of Funding Awarded: \$6,500

The Biomedical Engineering Student Association (BESA) is a student-run group whose mission is to enhance graduate student experience within the University of Toronto Institute of Biomaterial and Biomedical Engineering (IBBME). This is accomplished through organizing social, academic, professional, and community events, serving as the voice for the IBBME graduate student community, and engaging initiatives which will result in the betterment of the IBBME graduate student experience. BESA received a total of \$6500 through the Centralized Process for Student Initiative Funding (CPSIF) where \$6000 was from IBBME and \$500 was from the Engineering Alumni Association. It is through funding sources such as these that BESA is able to fulfill its mission.



Image 1: BESA students having fun at an orientation event for incoming students

Our events and initiatives foster student leadership, encourage professional development and facilitate networking. Specifically, an orientation week was organized to welcome incoming students and give them a sense of the community. This student-run initiative required the organization of various events including a campfire celebration (Image 1). Funding was used for promotional materials, refreshments, space bookings, etc.

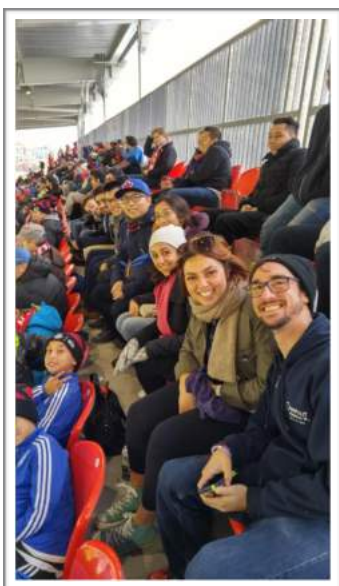


Image 2: BESA students attending a Toronto FC game

Professional development events such as Career Day and industry visits strengthened connections between students and alumni. Career Day was held on March 27th, 2017 and featured several keynotes and panel discussions, with a total of 11 invited speakers, 8 of whom are University of Toronto alumni. This included alumni from the Department of Chemical Engineering and Applied Chemistry, IBBME, History and Philosophy of Science and Technology, Materials Chemistry and Mechanical and Industrial Engineering. There were also postdoctoral fellows from the University of Toronto IBBME, the Department of Occupational Science and Occupational Therapy and the Princess Margaret Hospital. During these sessions, speakers addressed attendee questions regarding the challenges and opportunities within the field of biomedical engineering and healthcare. The funding was used for set-up costs, food, refreshments and speakers' thank you gifts.

Further, the funding we received allowed BESA students to participate in events both within our department and among other engineering departments.



Subsidized events within our department included archery tag and the opportunity to watch a Toronto FC game (Image 2 and 3). Events such as Halloween in November, a Welcome Back Social in January and a St. Patrick's Day Social in March allowed students to meet, network and socialize with other engineering department students. We were also able to subsidize the cost of BESA t-shirts and hoodies to increase the sense of community and awareness of BESA.

Finally, to receive feedback on our club's work, we hosted our annual general meeting with refreshments provided through our funding. Our student body was able to provide feedback on communications, supervisors, and BESA's events. In summary, BESA is very grateful for the opportunities provided through the funding (Image 5).



Image 3: BESA students having fun at archery tag, a competitive and teamwork building activity



Image 4: Students engaged at the Career Day hosted by BESA



Image 5: BESA students at our annual general meeting



# Blue Sky Solar Racing



**Total Amount of Funding Awarded: \$34,600**



Testing the solar car at the NRC Wind Tunnel testing facility

Blue Sky Solar Racing primarily used the funding to purchase materials, complex machinery, and other high-tech components of the solar car. Batteries and solar arrays were some of the materials that were acquired externally. Additionally, funding was used to test and optimize the performance of the car. Further funding was used to support technical workshops. Fabrication workshops for students to gain hands-on experience in essential skills, like soldering and circuit design, to name a few, have also been enhanced, both in their frequency and in the quality of the hardware and materials available.

In the past year, the team has been able to attend a broad range of events, including various conferences, exhibitions, and conventions. The Ontario Centre of Excellence Discovery Conference, the Prospectors & Developers Association of Canada Conference, and most recently, the Toronto Sustainability Summit, are some of the many events we attended. Through attendance at these events, members of the club aim to raise environmental awareness and promote the development of sustainable energy at the level of the school, the industry, and in the wider community.



The University of Toronto 2017 Sustainability Summit

This message resonates with the 80+ members of Blue Sky, who, while working on an emission-free solar racing car, have the opportunity to develop professional skills in a variety of fields. Students are able to gain hands-on technical experience working with advanced hardware and fabrication materials, business skills through working directly with industry professionals, and both teamwork and leadership skills, by working in the tight-knit community cultivated by the large, multidiscipline team.



Members working on mold fabrication

We received funding from the Department of Materials Science & Engineering, Mechanical & Industrial Engineering, the Division of Engineering Science, The Edward S. Rogers Sr. Department of Electrical & Computer Engineering, Engineering Alumni Association and You're Next Career Network. The funding received was important to the club because it allowed the Blue Sky Solar Racing team to continue to operate at internationally competitive level. Thanks to the generous funding from these departments, the team is able to use cutting-edge technology and high performance materials to build an improved solar car for the Bridgestone World Solar Challenge in October 2017. In addition, we were able to spread knowledge about the applications of engineering and sustainable technology.



Blue Sky Solar Racing engaged alumni in the multiple events that we hosted and took part in this year. In addition, various alumni visited the solar car workshop to share their experience and technical expertise with current members. This includes best practices for construction, advice for business development and relations, and general guidelines that help further develop the work of the team. Blue Sky Alumni like Nanoleaf or other faculty members helped the team technologically and frequently engaged team members. In addition, at the events we attended as mentioned, we met and engaged with University of Toronto Alumni as they took part in these industry related conferences or events.

The major event that the team held this year was the 20th Anniversary Event on November 18, 2016. This event celebrated the work that the team has done in the past 20 years and looks forward to the team's future endeavours. Past and current team members along with industry partners and University faculty attended. Over 25 alumni came to the event and were able to network with other attendees and share stories of their experiences working on the team.



Members during the vacuum infusion of the mold. L to R: Melissa Fung, Megan Baek, Zhexiang Wang, Tracey Lem, Sean Doughty, Andrew Uderian, Hanna Zhang, Hubaab Hussain



Toronto Sustainability Summit. L to R: Geneive Shek, Natasha Valenton, Rachel Hyeon, Frank Gu, Gimmy Chu, Ariel Seebarran, Deep Pandya



Current members and alumni at the Blue Sky Solar Racing 20th anniversary Event

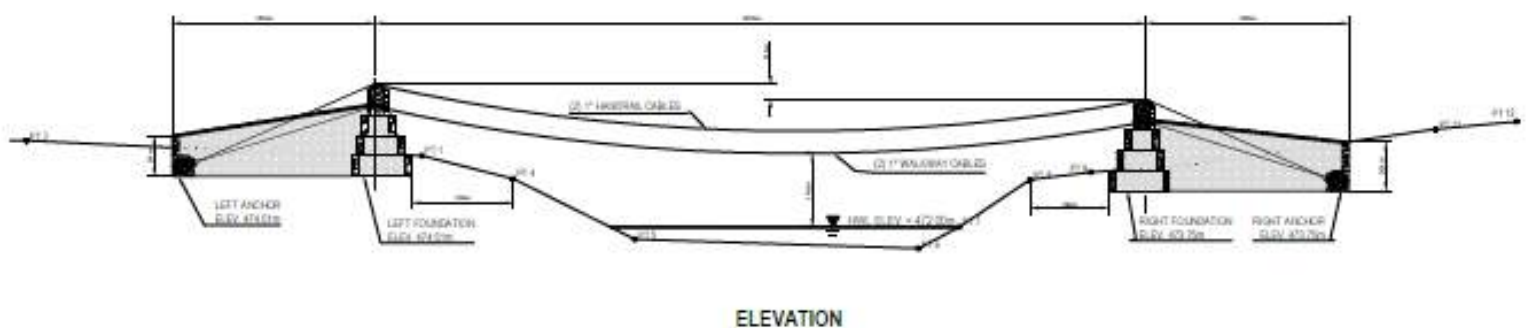


# Bridges to Prosperity – University of Toronto Chapter



## Total Amount of Funding Awarded: \$5,650

This year, Bridges to Prosperity – University of Toronto Chapter received a total of \$5,650 from the Engineering Society, Alumni Outreach Office, Civil Engineering Department, You're Next Career Network and Engineering Science Department, through the Centralized Process for Student Initiative Funding (CPSIF). This funding has been applied towards the project costs for our upcoming bridge project in Chillcani, Bolivia. This year's project in Chillcani will provide access to healthcare, schools, government services, and markets for a community of forty families for the four-month rainy season. This site is especially important as just last year, two people were hurt trying to cross the river, so our work will make a direct impact on the health and safety of the community. The bridge we are building was designed by University of Toronto Engineering students who will also be travelling to the site to assist the community in the construction of the footbridge. The funding that we received from CPSIF covered approximately a third of the cost of materials and technical supervision and support for this project, significantly lightening the burden on corporate sponsorship and chapter member contributions. In addition to funding, two University of Toronto Alumni, David Gerhardt and Brandon Jacobs, will be providing their technical skills as Bridge Corps supervisors for this project, a mandatory level of supervision required for the project. Overall, the funding we received through CPSIF is helping us work towards our vision of a world where a lack of adequate infrastructure does not contribute to global poverty.



CPSIF Funding will help us take this bridge from concept to reality this May in Chillcani, Bolivia!



# Canadian Society for Chemical Engineering (CSChE) University of Toronto Student Chapter



## Total Amount of Funding Awarded: \$9,548

The funding provided through the CPSIF was used for hosting various professional development and social events for students enrolled in the Chemical Engineering department, in addition to subsidizing student fees for the annual CSChE conference.

Professional development events included:

- Professor-Student Mixers
- First-Year Mentorship Program
- Sector Info. Night
- What To Do During Summer
- How To Survive First Year
- Undergraduate/Graduate Student Mixer
- Plant Tour

Social events included:

- Coffee House/Kris Kringle
- Halloween Costume Party
- Class Parties

The funding provided to our club was used to contribute to the vibrant Skule community through events such as the following:

- *Professor-Student Mixers*: This event provides a platform for students to communicate with their professors in an intimate and friendly environment. The general set-up for this event was that we invited around 6-8 different faculty members (e.g. professors, Chair of the department) to provide diversity to the students and encourage professor participation. Students praised that this event allowed them to connect with their professors in a non-academic setting and provided them with a better understanding of the research and experience of our esteemed Faculty. Professors are given a chance outside their lectures to speak with students about the current industry and how it relates to their research.
- *Sector Info. Night*: Every year in the winter semester we gather both students and Alumni to exchange information on their time since graduation, and the diverse applications of a chemical engineering degree in industry. We invite six speakers (all alumni of the Chemical Engineering Department), with very diverse occupations in the chemical industry. Having this variety helps to show students that there is no generic chemical engineering job, in fact your engineering degree is only a stepping stone to a world of possibilities where the skills and knowledge taught in university can be applied. The industries we usually cover include: environmental, consulting, pharmaceuticals, chemical processing, graduate studies (MBA, MEng, PhD). After a 10-15 minute presentation from each alumnus, we serve catered food and open the floor for casual Q&A. This allows the students to have some 1 on 1 time with alumni from an industry they may find interesting and learn more about the value of their degree. Through this event our Chapter also keeps the bonds between alumni and current students strong and highlights the importance of giving back to the discipline of their society.



Executing club events would not have been possible without the generous financial support provided through the CPSIF. The funding was primarily used to subsidize student registration for the CScHE's annual conference where students represented the University of Toronto's Chemical Engineering department in the capacity of contest participants and attendees. We are thankful for receiving funding from the Engineering Society, the Department of Chemical Engineering and Applied Chemistry and the Engineering Alumni Association.

Our club engaged our alumni for many of our events, by inviting them as speakers, volunteers, and participants. Six alumni speakers were invited for our annual Sector Info. Night, in addition to speaking at our LinkedIn workshop. We also had alumni volunteer as mock interviewers for our collaboration event with AIChemE, Ace the Interview. Lastly, we had a few alumni attend our Undergraduate/Graduate Pub Night during Chem Week, where they socialized and discussed their experience as University of Toronto Engineering students.



The pictured students represented the University of Toronto's Chemical Engineering Department in the CScHE's Robert G. Auld Student Paper Competition where Ziyu Bao placed First. *[Left to Right] Ziyu Bao, and Adrian Lambert*



The University of Toronto student delegates attending the 66<sup>th</sup> annual CScHE conference in Quebec City. *[Left to Right] Back Row: Bowen Wang, Ziyu Bao, Maksym Sotulenko, Mohammed Ali, Andrew Kostruba, Elizabeth White, Chris Renaud, Kenny Wei, Angela Ma, and Rosten Role Front Row: Mingfan Yang, Seyoung Chang, Carolina Ferreira, Katie Dritsas, Shankavi Sivakumaran, Kayla Musalem, Anita Ankisetty, and Nirali Patel*



# Chemical Engineering Graduate Student's Association (CEGSA)



## Total Amount of Funding Awarded: \$4,500

We were able to host several events this year for our graduate students, post-doctoral fellows, faculty and administrative staff. Two examples of events we have hosted to engage students include the Thanksgiving Lunch and the Alumni Panel. The Thanksgiving lunch is an annual CEGSA organized event, which relies on the graduate student executives to prepare turkey, salads, potatoes and vegetables to serve to chemical engineering graduate students, post-doctoral fellows, faculty and staff. This event has always drawn a great turnout and this year we served over 100 people not including the executives who get free lunch. The funding allowed us to reimburse the graduate students who take the time to prepare the food and bring the department together early in the fall. The Alumni Panel was organized to provide graduate students the opportunity to start planning their career following graduate school. We hosted five alumni: Carol Aziz, John Phyper, Michael May, Michael Halender and Lorraine Fraser on February 28<sup>th</sup> representing both men and women from a diverse set of backgrounds (MEng, MASc, PhD, Post-doc positions held in our department) , moderated by our department chair, Professor Grant Allen. With the funding we received, we were able to provide food to more than 40 graduate students who attended the successful event. The graduate students had the opportunity to ask questions to the panel and the Alumni provided great insight and opinions on how to get hired, what to consider at an interview and what a career may look like in engineering. One event which we have planned and reserved at the Hart House for June, is the Departmental Graduate Semi-formal event. This is only possible through funding provided by the department as we cater the event which typically attracts 50-60 students.

We are grateful for the continuous support from our department, and look forward to organizing more professional development and social events for our community.





# Civil Engineering Discipline Club



**Total Amount of Funding Awarded: \$2,500**

## **Examples of how funding was used:**

The Civil Engineering Club organized many events and projects, which included the Civil and Mineral Engineering Dinner Dance, the Iron Ring Ceremony, class socials, such as skating at Harbourfront, a networking event for Read Jones Christoffersen, bake sales, a barbeque, a Coffee House, mentorship events, and common room renovations, among others.

The sponsorship funds were used to order food for these events, pay for external costs of venue and transportation for the dinner dance to which alumni and faculty were invited, and pay for the additional common room furniture and equipment improvements for the Civil Engineering common room (to meet the needs of students during the long hours they spend on campus). These contributions made these three improvements possible, enabling the club to run these events.

## **Specific stories about how the funds assisted the Club's work, which, in turn, contributed to the vibrant spirit of our Skule community or impacted the wider community:**

On Wednesday, March 8, the Civil Engineering club hosted a networking event for RJC, Read Jones Christoffersen. This event allowed the students to engage with University of Toronto Civil Engineering alumni, Duncan Rowe, James Cooper, and Andrew Voth, asking and learning about their future careers in structural and building science engineering. The event had pizza and drinks and was an overall success. The Club partnered with CEGSA, the Civil Engineering Graduate Students Association, and CSCE, the Canadian Society for Civil Engineering to promote the event; so many undergraduate and graduate students attended as well as a few faculty members, that the room ended up being a bit too small! This was not good, however it was exciting for the Club to see how well attended and planned the event was.



Coffee House Audience (January 19th, 2017)

Another event that was organized by the Civil Engineering Club was the Civ Coffee House held on Thursday, January 19<sup>th</sup>. The coffee house brought Civil Engineering students together for one evening, to watch student performances in the arts, music, and dance. A few performances included the University of Toronto Dance Team, an accordionist, a pianist, a few singers, and more. Food was provided at this event, which was deemed extraordinarily successful in terms of attendance (approximately 60 attendees) and performance.



### Why the funding was important to the Club:

Department of Civil and Mineral Engineering: \$2000.00  
Engineering Alumni Association: \$500.00

The University of Toronto Civil Engineering Discipline Club provides numerous services for its current, past and future students. Each year the Club organizes and hosts events for the undergraduate civil engineering students, professors, staff and alumni. These events include networking events such as the professional experience year mixer, social events such as the annual Civil and Mineral Engineering Dinner Dance, academic events such as focus groups to improve courses and curriculum, and leadership such as the Civil Engineering Mentorship Program. These services, provided by the club, aim to enhance the overall quality and experience of fellow civil engineering students from the student level.



The Civil Engineering Club at the Dinner Dance  
(November 18th, 2017)

The Civil Engineering Club runs events that directly or indirectly relate to the activities of the Department of Civil Engineering. Through the planning and budgeting of allocated resources, we are able to run networking, social, academic and leadership style events, which provide opportunity for students to grow both academically and professionally. We strive to create events that promote learning and growth in a style not typically pursued by current undergraduate curriculums.

The funding was important to the Civil Engineering Club because without it, many of these events would not be possible. These events are what bring the Civil Engineering student body closer together and keep the Skule spirit alive. Without this money, there would be few/no program related events for the Civil Engineering class that the civil engineering colleagues could attend together.

### Club engagements with alumni:

- Read Jones Christoffersen Panel + Networking Event

On Wednesday, March 8<sup>th</sup> from 6 – 8:00 pm, the Civil Engineering Club organized and hosted a panel and networking event for Read Jones Christoffersen. The alumni that came to the event as RJC representatives were Duncan Rowe, James Cooper, and Andrew Voth. In addition to this, faculty members Nelly Pietropaolo and Professor David Ruggiero were present at the event. The attendance of this event was approximately 40 people.

- Guest Lecture for Read Jones Christoffersen

On Friday, March 3<sup>rd</sup>, the Civil Engineering Club organized a guest lecture event for Read Jones Christoffersen. The event took place during Professor David Ruggiero's Reinforced Concrete lecture, and was presented by a University of Toronto alumni, Daniel Snodgrass. The presentation was very well received by the third-year Civil Engineering class, and likewise deemed a successful event considering how engaged the students were. Attendance was approximately 60 students.

- Iron ring ceremony

The Iron Ring Ceremony took place on March 4<sup>th</sup>, 2017 and was organized by the Civil Engineering Club. Attendance for the ceremony was approximately 200 people and included graduating civil engineering students, and engineering faculty and alumni.



# Club for Undergraduate Biomedical Engineering (CUBE)



**Total Amount of Funding Awarded: \$4,150**

CUBE would like to thank the Institute of Biomaterials and Biomedical Engineering (IBBME), Skule Alumni and Friends, Engineering Society (EngSoc), Department of Engineering Science, Department of Electrical and Computer Engineering, Department of Mechanical & Industrial Engineering, Department of Chemical Engineering & Applied Chemistry, Department of Materials Science & Engineering, and the U of T Student's Union (UTSU) for continuing to allow CUBE to be successful in carrying out its mission during the 2016-2017 year. Thank you for making this possible!

## 2017 Biomedical Engineering Competition:

The 7<sup>th</sup> annual Biomedical Engineering Competition (BMEC) held this year was once again a great success! BMEC is a competition where undergraduate students are tasked with solving an industrially relevant biomedical engineering problem. The problem statement this past year was to design and prototype novel and practical solutions that aid children who have cerebral palsy in typing and writing in a classroom. 18 teams with the use of arduino kits developed solutions that were creative and practical, and most important of all, the participants all walked away with a more in-depth knowledge of challenges that arise in the field of bioengineering.



## Student Professor Mixer:

This event was an excellent opportunity to explore the current research at U of T while giving students the opportunity to interact with professors at a personal level. The event started off with professors giving brief talks about their research. Students from CIV, MIE, ECE, MSE, EngSci, CHEM, and Life Sciences then had the opportunity to talk with the speakers face-to-face and learn more about biomedical engineering in the academic field. It was insightful for many of our attendees!





### **Undergraduate Summer Student Research Seminar:**

This seminar was to provide students with the inside scoop on how to land a summer research position in line with their future aspirations. We discussed the application process for health and bioengineering related research programs, and application procedures for grants such as NSERC. Further, we provided tips on how to approach a prospective professor to discuss research positions and how to have a successful interview.



### **PEY/Industrial Mixer:**

More than 100 students came to hear leading industry professionals discussing their companies, their own journeys in the biomedical field, and tips and tricks on how to land a job in the biomed industry. The event started off with industry professionals giving a brief talk about their company and background. Students from disciplines ranging from CIV, CHEM, ECE, EngSci, MIE, MSE, and Life Sciences, had a chance to talk with them face-to-face and learn more about biomedical engineering in industry. Eleven distinguished guests from a diverse selection of companies (from start-ups to well-established biomedical companies) and specialties (ranging from app development, medical devices, to tissue regenerative medicine). The speakers ranged from entrepreneurs, such as Karl Martin (EngSci OT1), the CEO of Bionym, to researchers at renowned hospitals, such as Tilak Dutta (ECE OT3) from the Toronto Rehabilitation Institute. In addition, a great number of representatives present were looking to hire for PEY and summer positions, easing the job search and creating a network environment for the students.



### **Grad/Med School Seminar:**

The seminar was attended by Professor Hatton as a speaker for graduate studies in the US. Furthermore, the seminar was also attended by graduate students in programs such as U of T's MD/PhD, medical school and MASc. Both the professors and students gave their advice and insights regarding the biomedical graduate studies.

### **Toronto Rehabilitation Institute Lab Tour:**

Students were invited to visit the largest and most advanced rehabilitation research program in the world to explore summer research opportunities. TRI has enormous simulators that can simulate icy road conditions, for example, and these can be used to test devices that can assist people in these conditions, which would improve their safety. They also have driving simulators where they can research how to improve the safety of cars.

### **MaRS Tour:**

MaRS Discovery District is where science, technology and social entrepreneurs get the help they need. A limited number of students had a chance to join our tour of MaRS, where the students first visited Scar X Therapeutics, a pre-clinical stage biotechnology company focused on the development of a novel therapeutic to reduce dermal scars, followed by STARR Innovation Centre, the only imaging center in the world providing state-of-the-art imaging technology for cellular studies such as MRI, PET, and CT scanners. The tour ended with exploring a Human Factors Lab, Healthcare Human Factors.



# CUSEC Toronto Delegation **CUSEC** '17

## Total Amount of Funding Awarded: \$750

On January 14th, 2017, the CUSEC Toronto Delegation—a group of 34 ambitious and career-driven University of Toronto students consisting of CS and ECE students—attended the 16th annual Canadian University Software Engineering Conference (CUSEC) in Montreal, Quebec. About 500 students from over 10 universities across Canada were present. Five ECE students from the University of Toronto attended CUSEC this year. The conference was an opportunity for students to learn from and connect with professionals in software engineering, network with students from other universities, as well as attend workshops hosted by leading tech companies. The Edward S. Rogers Sr. Department of Electrical & Computer Engineering provided \$750 in funding to help reduce accommodation and transportation costs for the five ECE students that attended CUSEC. With the support of the ECE department, overall expenses per ECE student were reduced by 50 percent.

CUSEC is primarily aimed at undergraduate and graduate students with a passion for software engineering and technology in general. The conference lasted over a span of three days with 18 different speakers. Students were able to listen to a broad range of topics from deep learning and artificial intelligence to web architecture. In addition, students were able to attend workshops hosted by Kinaxis, RBC, CAE, Yelp, Capital One, Ubisoft, IBM, as well as CSE. The workshops provided a space where students were able to learn, engage in discussion and directly ask questions about technologies used by the companies.

On top of the workshops and talks, CUSEC hosted a three-day long career fair where students seeking internships or full-time positions had the opportunity to connect with recruiters from various tech companies. Recruiters reviewed resumes and interviewed some students on the spot. University of Toronto's ECE students were able to broaden their knowledge on software engineering by attending CUSEC. The conference provided a space where students could develop professionally. The students were able to connect with students from other universities and different disciplines, showcase their skills to recruiters, as well as engage in discussion about software engineering. Most importantly, the funding received from The Edward S. Rogers Sr. Department of Electrical & Computer Engineering directly assisted in helping to reduce expenses and made this trip possible for the university's ECE students.



Career fair hosted by CUSEC



Student delegates from over 10 Universities



# Electrical and Computer Engineering Club



**Total Amount of Funding Awarded: \$5,500**

## **Examples of How the Funding Was Used:**

Funding was primarily used in running our annual ECE Dinner Dance, which is open to all undergraduate engineering students and their friends. Additionally, this year ECE Club purchased lockers, which are available for rent to ECE undergraduate students during the year, and installed a T-Card swipe lock on the common room door to improve security.

## **Share specific stories of how the funds assisted your club's work, which, in turn, contributed to the vibrant spirit of our Skule community or impacted the wider community:**

By successfully running an incredible Dinner Dance for the students and improving security in the common room while making it more exclusive to ECE students, ECE Club demonstrated that its purpose is to serve the undergraduate community. Every year we try to get more students involved in initiatives, and by taking the steps we have this year, we are definitely heading in the right direction.

## **Why was this funding important to your club? Please also indicate all sources of funding from the Centralized Process for Student Initiative Fund:**

The only source of funding we received was from the Edward S. Rogers Sr. Department of Electrical and Computer Engineering and this was vital to our club for the reasons mentioned above; we would not have been able to complete the initiatives and events that we did this year without it.

## **Did your club engage any alumni (whether as participants, coaches, speakers, volunteers)? Please indicate which alumni, how many alumni, the dates of events and in which capacity they participated (if applicable):**

Unfortunately this year, we were not able to engage alumni, but a potential idea of creating an Alumni Speaker Series for ECE undergraduate students was discussed and will be mentioned in the transition for the incoming executives.



**ECE Club Members at the Dinner Dance:**

**Standing Up (left to right):**  
Pankhuri Kaushik, Olga Bondarev,  
Fay Huang, Sofia Tijanic, Brandon  
Norberto, Patrick Howell,  
Nicholas Chin.

**Lying Down (left to right):** Nikola  
Andrejevic, Jonathan Swyers



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# Engineering French Conversation Club

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## Total Amount of Funding Awarded: \$120

The Engineering French Conversation Club was funded by the Engineering Society (\$60) and the Engineering Alumni Association (\$60).

This funding was used to create a warm and welcoming environment in our meetings, including purchasing snacks and the movies that were shown. As a result of this funding, we were able to hold meetings of a consistently high calibre, forming a tight community that will be the foundation for our club moving forward. We have allowed many students to revisit the French skills they last touched in high school and have given many more the basic language skills they need to be able to learn French as they move forward in their professional lives. For all of our members, we have also begun to instill an appreciation for French-language culture, not only that of France but also of Quebec and the franco-Ontarian community.

Several of our members are otherwise uninvolved in Skule clubs and events – our club has shown them the value of engaging with the broader Skule community. We hope to continue this role in the future by ensuring we reach out to potentially uninvolved or isolated students, offering them a casual, friendly and low-commitment way to become involved.

While we targeted alumni as a potential audience for our meetings, we were unable to engage any over the course of this year. We plan to continue our efforts to leverage this key group over the next year.

Overall, the funding we were awarded through the CPSIF allowed us to ensure we ran high-quality meetings that welcomed members into our EFCC community. Our strong achievements this year would not have been possible without it. We're looking forward to another great year serving the Skule community.



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# Engineering Science Club



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## Total Amount of Funding Awarded: \$7,000

Dear CPSIF Donors,

In my role as EngSci Club VP Finance, and on behalf of the other members of the executive team, I'd like to express my sincere gratitude to the various departments that have contributed toward EngSci Club's success this year through CPSIF funding.

The funding we received this year (\$7000 total) was put toward a number of successful events, initiatives, and projects. Primary amongst these was our annual Engineering Science Dinner Dance, held on November 11, 2016 at the Paradise Banquet Hall. The event saw 262 EngSci students, faculty and friends come together to eat, dance, and celebrate, away from "the daily grind". This year's dinner dance movie was a noteworthy highlight of the night, captivating the audience with its comedic, laidback tone.

The CPSIF funding we received was specifically used to secure the event location, rent A/V equipment, and subsidize the dinner costs for students. Engineering science has a reputation as a rigorous, challenging program, but the students take pride in their "work hard, play hard" mentality. In sponsoring this event, the various departments contributing to CPSIF have significantly contributed to the positive attitude, mental health, and well-being of students within the program.

The funding from the CPSIF members went a long way to help make this event possible, along with other events like the Nocturne Talent Show and Iron Ring Graduation Event. These events play a positive role in EngSci social life, and have a significant impact on fostering the strong sense of community that many EngSci students can attest their success too.

Once again, we would like to thank Engineering Science, the Edward S. Rogers Sr. Department of Electrical & Computer Engineering, the Engineering Alumni Association, the Institute of Biomaterials and Biomedical Engineering and You're Next Career Network for helping make our events this year a positive experience for the EngSci community. We hope that you will continue to provide your assistance to our club in the coming year.

All the best,

Cameron Alizadeh  
Vice-President Finance, Engineering Science Club



# Engineering World Health - University of Toronto Chapter



## Total Amount of Funding Awarded: \$2,650

Funding awarded :

Department of Mechanical & Industrial Engineering:	\$150
Engineering Alumni Association:	\$750
Institute of Biomaterials & Biomedical Engineering:	\$1750

How funding was used:

The funding supported Engineering World Health UofT in organizing a number of events under our 3 main pillars: Engineering, Education and Innovation.

Accomplishments:

The University of Toronto's annual Engineering World Health symposium, themed *Origins and Opportunities*, hosted a number of speakers and workshops to share innovative ideas about world health. It took place on January 20th at the University College, located on the University of Toronto's St. George Campus. Engineers and non-engineers alike were drawn to the full-day event and enjoyed speaker-sessions, panel discussions, interactive workshops as well as a networking lunch and poster session.

Throughout the symposium, a common theme emerged as speakers, regardless of their backgrounds, placed a particular emphasis on studying the context of the problem along with its technical aspects to eventually create an effective solution. This knowledge is best acquired by hands-on experience through collaborations, volunteering, and fieldwork. It is also apparent that there is no limit in age or background—with enough drive, we are all capable of making an impact on global health! For highlights on the topics that were discussed by the speakers during the Symposium, please find a summary at the end of this post, and check out the live tweets that were posted by all our attendees using the #2017EWHs hashtag. We'd also like to congratulate Ina Muskaj on winning this year's best tweet prize!



The poster session gave students an opportunity to showcase their research and interact with attendees from differing backgrounds. It was wonderful to see the genuine interest in global health work and to observe the innovative research being performed at the University of Toronto. Congratulations to this year's poster winners, Bryan Gellner and Pengzhou Lu, for their presentation on *Normothermic Ex Vivo Heart Perfusion*



We were fortunate to have the support of multiple organizations and student groups, who were on hand to inform students about other potential opportunities to participate in global health related activities. We are immensely grateful to our sponsors, as well as the speakers, moderators, and poster judges that made this thought-provoking day of discovery and discussion a reality. We'd also like to acknowledge the tireless efforts of the Symposium Organizing Committee, who volunteered their time (and sanity) to make this event a success.

The morning session had the theme *Origins*, where speakers shared their backgrounds to motivate and inform the audience about the different paths that led them to participate in global health through real life, relatable stories.

It started off with Jerry Ennett, whose passion in medical science and technology led him to the field of Biomedical Engineering. He discussed his use of portable, solar-powered 3D printers to create affordable, custom-made medical devices in low- and middle-income countries as well as the International Space Station! Ennett's work also focuses on creating a social enterprise which uses proceeds to fund further development and education in the communities. This will enable local physicians to design and print devices for patients at low cost such as finger splints and prosthetic arms. By bringing sustainable solutions to where they're needed, Ennett empowers the locals instead of displacing jobs.



Next up was Stephanie Gora, who discussed the challenges regarding the lack of access to clean water in small communities in Canada. Gora reminisced about her volunteering and consulting experience, which brought upon numerous opportunities that ultimately led to her current PhD studies. She also remarked the increasing female presence in the water industry, advocating for women in STEM! While working on a new water purification method that employs Titanium Oxide, Gora pointed out that the bigger challenge lies in fighting the industry's resistance to change. In addition to technologies, innovations in management, financing, education, and environmental stewardship hold the key to improving drinking water quality for isolated communities.



Calvin Rieder inspired listeners by discussing his inspiration: the world around him. Rieder's interest in water purification started in elementary school. Upon discovering the sheer number of people who do not have access to clean water, he created a science project to demonstrate passive water purification, a skill that he learnt while camping. Rieder continued to innovate in his backyard, using hot air from the back of a dryer to create iterations of prototypes that extracted water from air through condensation. Inspired by ancient architecture, he channels cool air during the night to condense water, and utilizes solar energy to disinfect water. Now an undergraduate student in mechanical engineering at UoFT, Rieder is progressively improving his design and aims to produce enough water that one person needs to consume each day. Be sure to look out for this budding new engineer and his resourceful solutions to a global issue!



After a morning of inspiring speakers, symposium attendees enjoyed lunch and a poster session, followed by workshops. The *Origins* workshop *What's Your Problem?! – Tackling challenges in complex healthcare systems*, led by consultant Jessica Fan, involved an interactive brainstorm session to explore problems in healthcare to identify a common issue. This workshop emphasized the importance to identify the root cause of a problem and find a resolution as opposed to treating the symptoms of an issue. Fan introduced a 3 stage process: distinguish problems and their common denominator, identify the stakeholders and understand their needs through the “empathy pathway”, then redefine the problem.

The *Opportunities* workshop, titled *Ideation and Designing for Healthcare*, was led by Lily Lo and Hadi Salah from MaRS and Hacking Health. The participants broke into small groups to practice systematic strategies and come up with ideas that improve healthcare. One memorable exercise was writing down questions that challenged the status quo—why do we have to go to the doctor? Why do we have to go to grocery stores to buy food? Why can't we grow our own food?—and imagining potentially better approaches. Other strategies were explored, such as simulating the life of a hypothetical patient to generate ideas for better patient care and using the “fast idea generator” as a tool to think differently and systematically for more effective idea generation.



Speakers in the afternoon *Opportunities* session included pioneers in the exciting fields of regenerative medicine, synthetic biology, and biomedical engineering. They also commented on the future opportunities and challenges of their field of research.



Dr. Emily Titus introduced the innovations at the Centre for Commercialization of Regenerative Medicine (CCRM) to bring regenerative medicine to industry here in Toronto. CCRM's framework is designed based on Toronto's strengths in the academic, industry, investor and healthcare landscape. One example of their work is the use of stirred bioreactors to scale up mesenchymal stem cell production. As millions of cells are required to treat a single patient, scalability is essential to creating an industry that serves a large community.

Next, Dr. Keith Pardee discussed the possibility of synthetic biology without cells. BY harnessing the sensory power of biology, synthetic biology has potential applications in medicine, ecological monitoring, and food supply. Paper-based technology employs cell-free extracts to produce programmable sensors that allows rapid development, on-site and on-demand manufacturing, and room-temperature distribution. This innovation was tested for Zika virus diagnosis. The turnover from design validation to production took less than a week, producing devices capable of discriminating various viral strain.

Our last speaker, Dr. Geunther, shared the latest developments in bioprinting planar and ductular materials for tissue engineering. He commented that most engineered tissue applications are focused on in vitro models for drug screening rather than cell or tissue therapy. Therefore, his lab directed their efforts to design a skin



printer for treating burn patients through partnership with a local dermatologist. Currently, bioprinting involves printing constructs onto which cells are seeded and grown. His research group started out by printing into a fish tank, and are now dispensing collagen-based tissue with a packing tape roller as an innovative method to achieve 3D-bioprinting. With his background in mechanical engineering, Dr. Geunther also emphasized on the importance of collaboration, where team members should be given the opportunities to interact in person at an early stage of the project. The audience was intrigued and we look forward to hearing more about his project in the future!

At the conclusion of this year's Symposium, we've grown to appreciate the immense support for global health initiatives within the UofT community. Next year, we will return, armed with new knowledge and ready to take on the world once again. We hope to see you there!

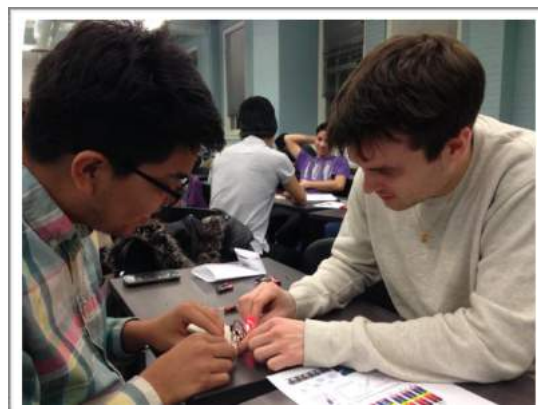


### **Innovation workshops:**

Our workshop "3D Printing for the Global Community" was presented by a professional in the field of 3D printing, Taurus 3D. The workshop consisted of an hour of the theory and possibilities session followed by a hands-on session where students got a chance to work in a group to design a device that solves a problem current patients have with day-to-day tasks. 3D printing machines and design software was provided. These devices may be printed in Ghana hospitals in the summer of 2017.

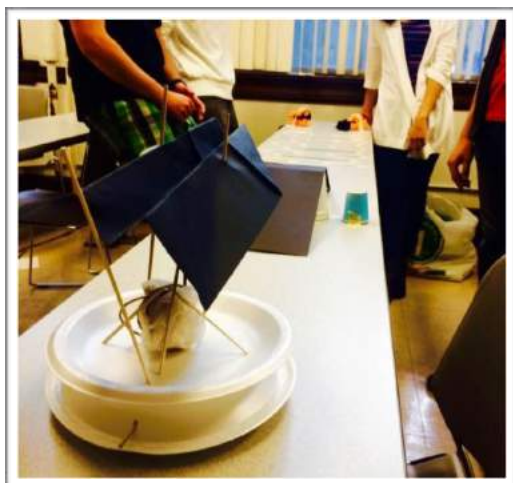
### **Engineering workshops:**

This is the first of a series of workshops was hosted to highlight the role of engineering on the global health stage and to challenge the engineer in you! Participants were introduced to engineering principles and strategies in the context of world health. A short lecture on circuitry and its relevance to global health was provided followed by a hands-on workshop with students planning a circuit, testing on a breadboard and finally soldering a complete circuit. A hands-on workshop provided the tools and knowledge to build a digital thermometer. The introduction was focused on the modular approach to engineering design and its importance for sustainable and cost effective devices. Participants had the opportunity to gain hands-on experience with soldering, desoldering and debugging circuits. The last portion of the workshop was focused on designing and prototyping a chassis for the circuit.



### **Education workshops**

Members completed an engineering challenge, answered some trivia and discussed how they would approach world health issues for the chance to win prizes. Additionally, we had the opportunity to speak with a Summer Institute alumnus about summer internship opportunities.





# Engineers Without Borders Canada - University of Toronto Chapter



## Total Amount of Funding Awarded: \$5,550

We, the Engineers Without Borders Canada University of Toronto Chapter (EWB U of T) have had the privilege of receiving \$5550 for the 2016-2017 academic year through the Centralized Process for Student Initiative Funding. In particular, we received financial support from the Department of Materials Science & Engineering, the Department of Mechanical & Industrial Engineering, the Department of Chemical Engineering & Applied Chemistry, the Department of Civil & Mineral Engineering, the Division of Engineering Science, the Edward S. Rogers Sr. Department of Electrical & Computer Engineering, the Engineering Alumni Association, and the Institute of Biomaterials & Biomedical Engineering. Through the generous support of these departments and organizations associated with the Faculty of Applied Science & Engineering, our Chapter was able to contribute to significant impact on campus, in Toronto, and globally, supporting a grassroots movement among the 40 university and professional chapters across Canada.

On campus, EWB U of T organized workshops on a weekly basis inviting university professors, renowned professionals, and our fellow students to teach and engage our membership in critical discussions about international development. Furthermore, on campus, our Chapter worked to stimulate change in the engineering curriculum, in our university's food system, and our Faculty's engagement with the next generation of engineers. In March of this year, we partnered with U of T professors and the Centre for Global Engineering to expose 466 engineering students to global engineering knowledge and applications through speaker series as well as institutional and student-run initiatives. In the speaker series, we hosted world-renowned speakers including the Director of The Global Engineering and Research Lab from the Massachusetts Institute of Technology. Moreover, EWB U of T lobbied food suppliers on campus to source a portion of their produce from Fair Trade certified food providers - a movement which contributes to the betterment of smallholder farmer lives through advocating for better prices, decent working conditions, and fair terms for the farmers and their workers. Lastly, we invested in the next generation of social change leaders through our continual engagement with high schools. This year, our Chapter engaged 1500+ high school students in ongoing design projects and in our annual professional development conference, working to expose students to engineering design thinking in a social context, to international development work, and to break the misconceptions they have about developing nations.

EWB U of T has worked in a wide array of collaborative projects with reputable non-profit organizations in the city of Toronto. This past year, we partnered teams of engineering students with organizations to work with them in solving design challenges inhibiting them from maximizing their social impact. For example, one design team worked with the Toronto Shelter Movers, an organization that provides safe and respectful moving services to people fleeing abusive households. They helped the NGO fully utilize their "Better Impact" software to recruit and contact volunteers in an efficient manner. Another design team worked on a proposal for a new IT infrastructure that can handle tasks such as scheduling and volunteer management in an organisation as large as the University Settlement. We also paired engineering students with several



organizations positioned in the Toronto food system, such as the Toronto Youth Food Policy Council, FoodShare, and local food banks, having them volunteer every week and critically assess the impact of these organizations. Finally, our organization met individually with 22 Members of Parliament (MP) this past year alone, more than any other EWB Chapter across the country, in our efforts to lobby local MPs to increase Canada's Official Development Assistance spending.

Our Chapter, although local to Toronto, has had impact on the international scale. Annually, we have hosted rising African leaders from countries such as Ghana and Kenya, investing in their personal development by hosting them in Toronto and exposing them to our culture and how their businesses operate in a Canadian context, allowing them to broaden their perspective and extract transferable best practices. Further, every year EWB U of T sends two undergraduate Fellows to volunteer with our national organization, EWB Canada, over the summer. Each volunteer gets staffed with one of the organization's ventures in one of Canada, Ghana, Kenya, Malawi, Zambia, Uganda, Côte d'Ivoire, or Ethiopia and is also responsible for sharing their learnings with the Chapter upon their return to university in the Fall. As a result of the amazing talent we have here at the University of Toronto, this past year, one of our Fellows was awarded the Leaders for the Future award by the Ontario Professional Engineers Foundation.

In addition to the above, we held six events this past academic year which brought in U of T alumni to share with our audience their professional and personal life experiences to date. These include:

1. September 14<sup>th</sup>, 2016: In a collaboration with another student club, Volunteer Engineering Experience Program (VEEP), EWB U of T hosted Terri Chu of the EngSci 0T5 class to share her experience volunteering in the international development sector and to discuss the importance of mobilizing engineers to get involved with policy and advocacy work.
2. October 11<sup>th</sup>, 2016: Mina Shahid, MechE 1T0 and former EWB U of T President, re-joined our Chapter to share with us his professional experiences since leaving U of T and working with EWB Canada and Acumen from Ghana and Uganda to all the way to Columbia. He also shared what motivated him as a new graduate to explore a career in international development and challenged our Chapter to identify our own motivations in doing the work we do.
3. October 18<sup>th</sup>, 2016: Ashkan Parcham-Kashani, EngSci 1T5, recounted to EWB U of T his recent professional experiences post-graduation in Silicon Valley and how his time with EWB helped him to identify his values and goals. He went on to run a value-identifying and goal-setting activity for the Chapter.
4. November 15<sup>th</sup>, 2016: Ron Sidon, IndE 6T6, shared his experience in philanthropic work with engineering rural water systems in Tanzania in a speaker session.
5. February 7<sup>th</sup>, 2017: Roy Houkayem, MechE 1T5, hosted a session on social entrepreneurship and his work experience in the sector with CUSO International and the Hult Prize. He went on to discuss opportunities for university students to engage in social enterprises abroad, the framework in which he views social entrepreneurship, and finally how to pursue an interest in the field.
6. March 7<sup>th</sup>, 2017: Daniel Hoornweg, PhD in Engineering 1T5, shared with EWB U of T a presentation on what he views to be sustainable development, in part drawing from his wealth of experience with the World Bank as the Lead Urban Specialist, Cities and Climate Change.

Please know that your support for our organization has made it possible for us to continue our work in creating positive social impact. You are not just supporting a student club, you are supporting a movement. On behalf of EWB U of T, thank you.





89 high school students from across the Greater Toronto Area attended EWB U of T's Social Change and Youth Leadership Conference in May 2016.



Haroon Dawood, ChemE 1T6 + PEY, speaks to first year engineering students about the work EWB U of T does on campus and in the Toronto area during F!rosh Week 2016.



Stephan Canagasuriam, first year U of T Mineral Engineering student, at one of EWB U of T's weekly member learning events.



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# Galbraith Society

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## Total Amount of Funding Awarded: \$1,400

The Galbraith Society is grateful to the Department of Mechanical & Industrial Engineering, Chemical Engineering, Engineering Science, Engineering Society and Engineering Alumni Association for funding us a total amount of \$1400 for the 2016-17 school year. The funding was used to plan and promote research at various events such as Summer Experience Workshop and Grad School Workshop. The funds were also used to purchase promotional items such as posters. These posters were given out to participants and general delegates at events to tell them about the undergraduate journal initiative. This funding has helped us promote the journal initiative amongst undergraduate students. Students had the opportunity to learn about various platforms to get their research published.

One of the main initiatives in which CSIF was used is the Undergraduate REX (Research Experience Program). REX connected 40 students to 15 different projects with professors at UofT. At the end of the year, we organized a final exhibition where the students got the opportunity to present to their peers about their year-long research project. Prizes were given to the winning student teams and dinner was provided to students of the REX program and professors.

The CSIF was used to introduce our club and promote Undergraduate research at the beginning of the year as well as holding various workshops throughout the academic year. At our Summer Experience Workshop event, speakers shared their summer research experiences with students and helped promote undergraduate research at the University of Toronto. At our Grad School Workshop event, students learned about grad school opportunities available to them and the application process as well as the requirements and standards. At our Intro to Stats Workshop, students were given an introduction to statistics and data analysis and their role in research. Students also had hands on experiences with R programming, a powerful tool that is not taught to all students in undergrad.

Our funding sources have helped our club grow professionally, which is very important when attracting students to publish in our journal as well as enroll in our REX program. Finally, a part of this funding will be used to host a transition dinner to thank the current executive team as well as to welcome next year's team. We greatly appreciate your support; thank you for helping us with our vision.





Areeba Zakir (Chair), Mishael Nuh (Co-Director of Events), Netra Unni (Co-Director of Events), Galbraith Society's booth at Engineering Clubs Day, September 7th, 2016



Mishael Nuh (Co-Director of Events) promoting Galbraith Society initiatives at the Galbraith Society Kick Off Info Session, September 21, 2016



Speakers, Kenny Kim, Philippa Gosine, Christopher Stewart, Nishant Bhatt, Marina Curak, at Graduate School Workshop, October 12, 2016



Students at the Intro to Statistics Workshop, March 21, 2017



REX students presenting their research at the annual exhibition of projects, April 5, 2017



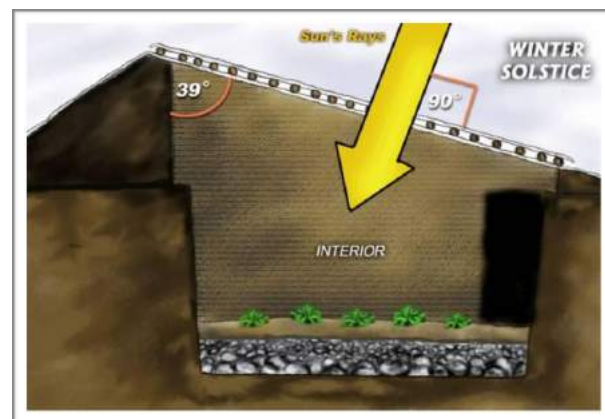
# Global Engineer Design Association (GEDA)



## Total Amount of Funding Awarded: \$950

GEDA is an organization dedicated to providing technical solutions to global issues through the utilization of the engineering design process. It should be noted that the majority of funding provided by the Centralized Process Student Initiative Fund (CPSIF) during the most recent funding round has not yet been used. It was CPSIF's decision in November 2016 to grant GEDA an additional \$950 (provided in part by the Engineering Society, Engineering Alumni Association and Division of Engineering Science) after approximately \$830 were carried over from the previous year (2015-2016). A minor portion of this funding was used to purchase refreshments for recruitment sessions and regular team meetings. However, due to GEDA's current project being long-term, it is the intent to save the funding for use at a later time. Additional details about this project are below.

In response to food security issues faced by northern Ontario First Nations communities, GEDA has decided to collaborate with Enactus-University of Toronto (UofT) in order to build a Walihouse. A Walihouse is a sustainable, semi-underground greenhouse that utilizes the earth's temperature for growing season extension and crop protection from the harsh, northern climate. Currently, First Nations communities are unable to obtain fresh, low- cost produce due to a lack of all-season roads, harsh climates and the distance from non- perishable food sources. Upon successful implementation of the Walihouse, a selected community will be able to grow its own fresh produce and rely less on external sources.



The Walihouse project team is currently proceeding with the design phase for a pilot Walihouse that will be tested in a southern Ontario First Nations community. This team consists of students from a variety of engineering disciplines (chemical, civil, mechanical etc.). The goal of the pilot is to test the Walihouse's capability in sustaining crops in warmer climates prior to implementation in a northern community. A rough construction date for the pilot is spring 2018. The team currently estimates that it will cost approximately \$50,000.

Due to the large sum of money required for the pilot Walihouse, the project team is seeking aid from external sources (government grants, competitions etc.). It is the expectation that the funding provided by the CPSIF committee will cover a portion of the costs incurred for review of the pilot Walihouse's design by an engineering firm.

Though there has not been much engagement with Alumni in regards to this project, GEDA would like to collaborate with the Engineering Alumni Association. It is anticipated that the goal of this collaboration would be to determine how the Walihouse initiative can contribute to benefitting the Skule community.



# Hi-Skule Committee



## Total Amount of Funding Awarded: \$450

### Examples of How the Funding Was Used:

The funding from CPSIF helped Hi-Skule collaborate with more educational groups to bring in more valuable content to students at events such as Designapalooza for grades 5 to 8 and UofT High School Design Competition (UTHSDC) for grades 9 to 12. We are thankful to have had this funding to confidently improve our work.



Designapalooza 2017

UTHSDC is Hi-Skule's flagship event, where more than 200 students and 50 student mentors partake in a design competition in groups. The competitions are mainly based on the engineering design process that is taught in the ESP and Praxis courses to first year engineering students. Designapalooza is an engineering outreach event for students in grades 5 to 8 to give them an image of engineering and engineers. In that event, we held robotics workshops in collaboration with a company called Braincubator as well as mechanical structure workshops. In both events, the funding helped us accommodate students with more materials and provide food.

### Share specific stories of how the funds assisted your club's work, which, in turn, contributed to the vibrant spirit of our Skule community or impacted the wider community:

Holding events like Designapalooza and UTHSDC is not only exciting for the student participants but also for our undergrad mentors. Us being able to bring more events like these with the available funding will encourage more students to join us as mentors, widen our mentor community, and teach them leadership through experience and teamwork.

### Why was this funding important to your club? Please also indicate all sources of funding from the Centralized Process for Student Initiative Fund:

As mentioned earlier, this funding covered things like materials and food for events. Without this funding, we would not have been able to achieve the quality of work that we did. We received funding from the Engineering Alumni Association, MIE and Chemical Engineering, that helped us greatly to make ends meet and be able to carry on with our work every step of the way.

### Did your club engage any alumni (whether as participants, coaches, speakers, volunteers)? Please indicate which alumni, how many alumni, the dates of events and in which capacity they participated (if applicable):

We reached out to engineering alumni for judging at the UTHSDC event. We were able to bring in elite judges because of this. The engineering alumni completed the team that consisted of professors, company owners, and educators. The event took place on Sunday, December 27, 2016, from 9 AM to 5 PM. The judging period happened between 1 PM to 4 PM. There were about 200 students participating.



# Human-Powered Vehicles Design Team



## Total Amount of Funding Awarded: \$4,250

The University of Toronto Human-Powered Vehicles Design Team received \$4250 through CPSIF during the 2016-2017 academic year. This funding contributed to the purchase of composite materials, mechanical components, and manufacturing services, as well as subsidizing the registration fees for students attending the 2017 ASME Human-Powered Vehicle Challenge.

A key use of this funding was to improve the quality of materials purchased by the team. Any class of materials is available across a range of grades; aluminum and steel come in various alloys, epoxies are available in various formulations, and carbon fiber is available with special chemistry and heat treatments to further increase strength. Our new human-powered submarine, "Axios", faces many material challenges due to the high loads, wet environments, and tight geometrical constraints under which it is designed to operate. In order to create a drivetrain that fit within the space available and yet could operate reliably at our athletes' maximum power output, we had to manufacture many components out of a high-end aluminum alloy that is 300% more expensive than what we usually use.

CPSIF funding comprises approximately 30% of the total funding received by HPVDT. With respect to the components and materials we purchase, this makes the difference between "passable" and "excellent", thereby enabling higher levels of performance and safety in our designs. This funding also allowed us to cover more than half of the registration costs for our first competition of the year, making it more accessible to team members of diverse means and backgrounds.

Skule alumni were present at several of our competitions in the past year as participants or spectators. Dan and Amanda Zolyniak were competitors at two races during the summer of 2016. Todd Reichert was a fellow competitor at the World Speed Challenge in September, with Cameron Robertson, Alex Selwa, and Trefor Evans assisting as race crew. All of these alumni expressed enthusiasm for HPVDT's continuing operations and new projects. We also collaborated on design and troubleshooting; each of these alumni was a key member of HPVDT during their time at Skule, and we continue to exchange ideas and test data in both directions.



**Eta Prime  
speedbike  
exceeding 100  
km/h during a  
race at the World  
Speed Challenge**





HPVDT at the 2016 World Speed Challenge. From left to right: Jun Nogami (Professor and Chair, MSE), Calvin Moes (EngSci NANO 1T3+PEY, MASc MSE, PhD Candidate MSE), Sherry Shi (EngSci ECE 1T5+PEY), Rossdan Craig (EngSci ECE 1T8+PEY), Chris Williams, Thomas Ulph (EngSci AERO 1T7), Evan Benneweis (EngSci AERO 1T7+PEY).



A rendering of the final Axios submarine design. Most of the vehicle has been built, and testing is expected to begin later this summer.



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# IEEE - University of Toronto Student Branch



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## Total Amount of Funding Awarded: \$6,500

The Institute of Electrical and Electronics Engineers University of Toronto Student Branch (IEEE UofT Student Branch) received CPSIF from Department of Electrical and Computer Engineering (ECE), Engineering Society (EngSoc), Division of Engineering Science, and Engineering Alumni Office during the 2016-17 school year.

The amount of funding awarded was: \$3,500 from the Department of ECE, \$2,000 from EngSoc, \$500 from Division of Engineering Science, and \$500 from Engineering Alumni Office, for a total of \$6,500.

Throughout this school year, IEEE UofT hosted 20+ technical and professional development events such as a speaker series, hackathons and competitions, conferences, workshops, etc. The organization of our events would not have been possible without the support of CPSIF. The funding we received was mainly used towards electronics and hardware needed for our competitions, hackathons, and workshops; gifts and compensation for our seminar speakers and competition judges; food and activities for our event participants; venue booking; etc. Specifically, the club spent \$4,580 on electronics and hardware for Hardware Certification Workshop and Hardware Hackathon, \$1,120 in total for room booking fees for weekend events such as Interview Workshop and Power Case Competition and \$200 on compensating keynote speakers for HelloCon Software Technology Conference.

One of the highlights of our work this year is Hardware Hackathon. Having CPSIF allowed us to purchase many electronics components and hardware that undergrad students would not be able to experiment with on a day-to-day basis, giving them an opportunity to turn their hardware design ideas into real products. The event was a huge success - we received more than 300 applications not just from UofT, but also from 9 other universities in Ontario and New York. 120 of them were accepted into the hackathon and most worked together to hack very innovative hardware products at the hackathon. IEEE UofT left the participants and the industry mentors with a very positive impression, with 84% of the participants rating the hackathon experience to be four stars or higher. Through Hardware Hackathon and other events, we strive to provide the Skule community and beyond with opportunities to develop technical and professional skills, and to serve as a bridge between Skule and a wider community of engineering students and professionals.

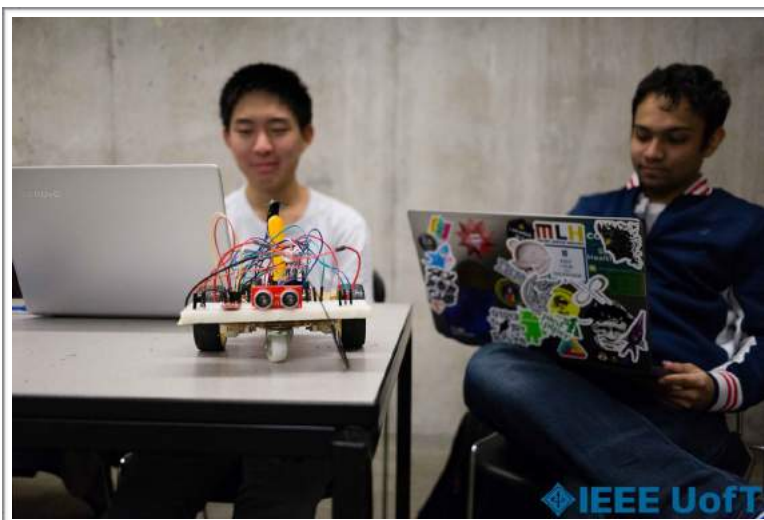
CPSIF is important to our club because our events simply would not happen without funding. The funding provided our club with enough resources for our significant development this year: we diversified our event portfolio, built on our existing annual events on bigger scales, reached out to more students, and invited more industry professionals to mentor our students. For example, Hardware Hackathon 2016 was not nearly at the scale of this year's hackathon: we only attracted 40 participants from UofT, were only able to purchase some small electronic components for the participants to work with and did not have nearly as many industry mentors at the event. As a result, most of the hackers did not have enough resources to hack together a complete product by the end of the hackathon, but only showcased some experimental circuits. Hardware Hackathon's significant expansion this year only happened thanks to more funding and IEEE UofT really appreciates all the support from CPSIF.



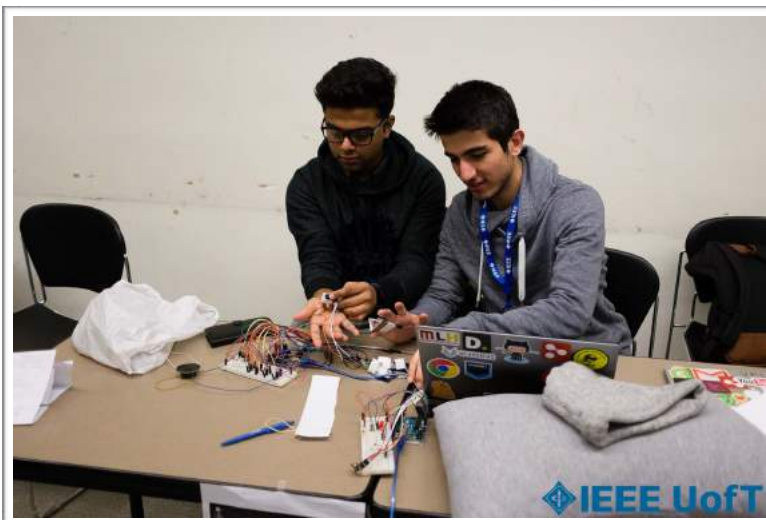
IEEE UofT has engaged many alumni in our events throughout the year. At our Resume Workshop in September 2016, we had Paul Leventis (EngSci 0T0) as one of the volunteer resume reviewers and also several alumni from the Computer Science Department. At our Interview Workshop in October 2016, we had Chuan Ye (ECE 1T3), Steven Yu (EngSci 1T2), and Lingfei Li (EngSci 1T4) among our volunteer mock interviewers along with several Computer Science alumni. At Hardware Hackathon in February 2017, we had Avanindra Utukuri (EngSci 9T6) as our keynote speaker in the Opening Ceremony, and hosted Peter Oakham (EngSci 0T4) as one of the judges. Our grad talks and tech talks happened throughout the year also had many alumni as speakers, such as Prof Anthony Chan Carusone (EngSci 9T7), Prof Francis Dawson (ECE 7T8), Prof Parham Aarabi (EngSci 9T8), etc.



At our Hardware Hackathon in February 2017, alumnus Av Utukuri (EngSci 9T6) gave a keynote speech at the opening ceremony about transforming your hackathon idea into a successful startup.



At our Hardware Hackathon in February 2017, participants Abrar Ahsan and Xihai Luo getting ready for the final showcase. They hacked together a motion-detection robot!



At our Hardware Hackathon in February 2017, participants Alireza Toyserkani and Neyef Ahmed demonstrated their project, a wearable device that uses nerve pulses to wirelessly control IoT devices, at the design showcase.



At another major event, HelloCon Software Technology Conference in February 2017, 100+ student and industry attendees gathered for an opening keynote talk delivered by Ashley Williams, who is an Operating Systems designer and developer from New York.



# International Genetically Engineered Machine UofT (iGEM)



## Total Amount of Funding Awarded: \$2,400

iGEM (International Genetically Engineered Machine) U of T is a student group that aims to foster interdisciplinary interest and awareness about synthetic biology research. During the fall and winter semester, we hold events in the form of seminars, workshops and socials for our members. During the summer, we present our members with the opportunity to develop and execute a synthetic biology research project with the aims of sharing meaningful findings with the broader research community and competing in the annual competition held at the iGEM Jamboree in Boston, Massachusetts. Our members acquire valuable research experience as our projects demand strong computational modelling, bench top experimentation, and policy considerations. As a student driven, faculty supervised initiative, iGEM UofT could not have fulfilled its mandate for the past year without the generous contributions of the Centralized Process for Student Initiative Fund (CPSIF).

The CPSIF sponsorship was key to paying the fees to register our team, which included over ten students from the Faculty of Applied Science and Engineering, in the annual iGEM Jamboree where their work was showcased. Our dedicated team engineered a cell-free paper-based gold biosensor for portable and environmentally friendly gold prospecting in geographically remote areas. In collaboration with the Mahadevan Lab from the Department of Chemical Engineering, members from our wet lab team learnt new skills including cloning and colorimetric assays to assemble and characterize our synthetic biosensor. The funding from the CPSIF played an important role in obtaining reagents, consumables, and equipment (e.g. gold chloride, phusion polymerase, pipettes, genetic sequencing) for the experiments. Members from our dry lab team, which included students from the Department of Electrical and Computer Engineering, and the Division of Engineering Science, also gained experience in bioinformatics by using protein modeling tools and developing a gene mining software, as well as a phone application to measure the output of our biosensor. Our policy and practices team, which included one Mineral Engineering student, researched the ethical, socioeconomic, and practical consequences of implementing these technologies in the artisanal mining communities in Africa. Through literature reviews, panel discussions with students, and interviews with experts, the policy and practices team considered the end user requirements to implement our tool in the real world. They also organized a summer camp for high school students to raise interest in genetic engineering and its responsible use. Our team's engineering students were able to gain new perspectives by collaborating with students from Life and Computer Sciences as well as the Humanities department. Finally, support for registration allowed four highly involved members to travel to Boston to present the team's research to a group of judges, which included established members of the synthetic biology community, on an international stage.

We would specifically like to highlight the contributions of Seray Cicek, Adele Nikitina, and Esther Jang, from the Division of Engineering Science, who have and continue to drive iGEM UofT forward as our 2016 co-president, treasurer and sponsorship officer respectively. Through iGEM, they have gained valuable



project management skills through designing a project, recruiting members to execute it and maintaining our efforts on budget.

CPSIF's sponsorship allowed iGEM U of T to secure the resources necessary to engage students in the summer research project and its final presentation. Support for the purchase of experimental materials gave wet lab members the chance to develop and test their constructs (Long GoIS P118A (BBa\_K2048002) and Long GoIS (BBa\_K2048001)) in hopes of providing meaningful additions to iGEM's BioBrick Registry and the broader research community. Ultimately, the team was awarded a bronze medal for its achievements. Without this funding, the basic experiments conducted to demonstrate a meaningful proof of concept would not have been possible. We thank the following contributors of the CPSIF: Division of Engineering Science, Institute of Biomaterials & Biomedical Engineering, Engineering Alumni Association, Engineering Society

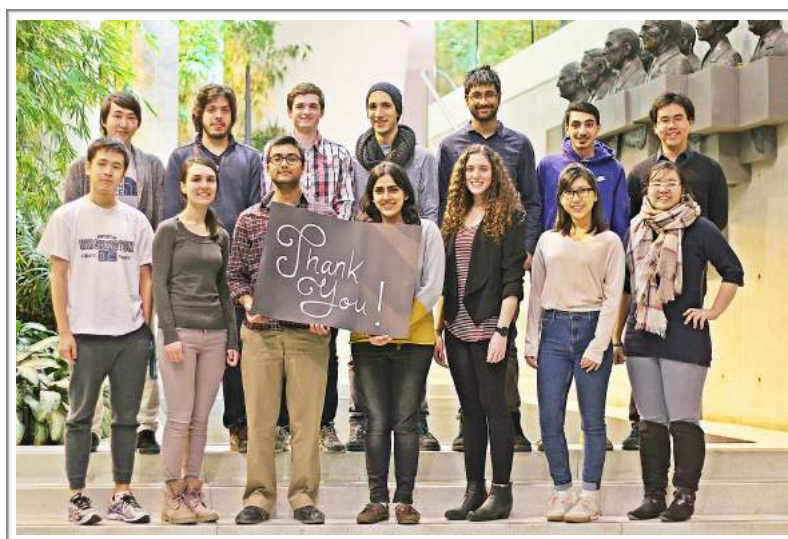
Although iGEM U of T did not engage any alumni over the past year, we welcome the opportunity for collaboration and seek the support of engineering alumni interested in supporting our team's synthetic biology research.



**E. coli culture transformed with plasmid enabling expression of Red Fluorescent Protein (RFP), used by wet lab members to indicate successful plasmid transformation.**



**2016 iGEM Jamboree: Bringing student-led synthetic biology research to the international stage.**



**Members of iGEM 2016 thank the CPSIF.**



# ILead:Grad UofT



## Total Amount of Funding Awarded: \$4,300

During the academic year of 2016-2017, ILead:Grad experienced a series of transformational changes that were not possible without the help of the CPSIF program. Our mission is to promote and teach leadership to the Graduate Engineering student community. In the past we've accomplished this through workshops developing leadership skills. This year we've instead focused on promoting professional development avenues such as industry-professional networking and entrepreneurship. We were able to host the first startup mixer, bringing in 4 unique organizations including Kepler, a startup led by University of Toronto alumni who are in the growing space-telecommunications industry.



A Biomedical Engineering Startup, SensOR Medical, presents their story

Alumni have always been the greatest strength of our events. During one of our events on the diversity of an engineer's career, alumni Andrew Binkley spoke of his inspiring story of starting off as an engineer, entering law, and ultimately acting as a CEO of a successful manufacturing organization. Students were then welcome to network with Andrew, expanding their professional networks.

This was the breakdown of this year's CPSIF Funding:

MSE:	\$300	ECE:	\$1000
Chemical Engineering:	\$500	Eng. Alumni Association:	\$1000
MIE:	\$500	IBBME:	\$1000
Civil Engineering:	\$0		

### Speed Interview Event / Graduate Engineering Career Fair:

For the first time in the history of ILead, the graduate division was able to host the first ever Graduate Engineers' Career Fair. With the collaboration of other graduate student associations, we were able to bring in 10 different companies across many industries, including Hatch and IBM. At the same time we were able to connect students with professionals not only through networking, but also through speed interviews. Graduate students from around the world, who are generally underrepresented at career events across all disciplines, have been given the opportunity to develop their leadership and professional skills through networking and interviewing practice by Canadian professionals of various experience levels. University of Toronto alumni who were willing to mentor graduate students about the Canadian professional world represented 4 of the 10 companies.



In conclusion, the CPSIF and the University of Toronto Alumni were the enablers of our organizations mission to promote professional development and leadership in our Graduate Engineering community. With your help, ILead:Grad will be able to create a new paradigm for leadership in engineering. Thank you again for your support, and for your continued belief in leadership as an integral part of engineering education.



ILead:Grad's Wine and Cheese Networking Event



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# Industrial Engineering Club

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## Total Amount of Funding Awarded: \$4,000

The Industrial Engineering Club (Indy Club) is extremely thankful for your contributions to this year's Indy Club funding. The funds were used to enrich the academic and social experience of Industrial Engineering undergraduate students across all years.

Indy Club has continued the organization of "Indy 101" and expanded it to impact students academically across all years. It introduced first years (both in Industrial Engineering and those in other engineering programs) to industrial engineering and helped them find their path in Skule. For upper year students, we hosted a Course and Option Selection (COS) Info Session so that students could learn about courses from their peers and a PEY Panel for 2nd/3rd Years to discover where other students have received their placements from and what they did to secure it.

As is tradition, Indy Club also provided the student body with an amazing dinner-dance in the fall to relax and socialize with others, as well as social events to celebrate Halloween and the holidays. In the spring, Indy Club ran a mental health and wellness event involving colouring, bubble wrap and puppies to help students relax during midterm season. The club also threw an Iron Ring party for the graduating class and co-hosted the MIE Coffeehouse. This year we decided to increase the funds allocated towards class reps allowing them to host their own de-stress events e.g. a class dodgeball tournament at Hart House. It resulted in increased class participation among students within their class.

The funding provided impacted more than 400 students by allowing us to run all of the events mentioned above and even more! Year over year, your funding provides the club with a consistent source of capital that enables us to continue helping students and throwing better and more innovative events. Thank you for all your help! We really appreciate it.



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# Institute of Industrial and Systems Engineers, Chapter 889 (IISE UofT)

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## Total Amount of Funding Awarded: \$4,500

Institute of Industrial and Systems Engineers (IISE), Chapter 889 is a student-run club at the University of Toronto. 'Chapter 889' is University of Toronto's dedicated chapter within a global network of IISE chapters which include global, corporate, and student levels. IISE is a professional society dedicated to expose students to the boundless opportunities as an industrial engineer, connect with industry professionals and alumni, and also receive training of technical skills that are beneficial to industry. The funding provided by FASE greatly aided in the operations of IISE. This year, funding of \$4000 came from the Department of Mechanical and Industrial Engineering and \$500 from the Engineering Alumni Association.

Funding was used to run the professional development events for undergraduate students. IISE at UofT has several annual popular professional development and certification courses. Such events include the accelerated Excel VBA course, LinkedIn Lab event hosted by LinkedIn employees, and the Lean Green Belt and Six Sigma Green Belt certification courses. The funding, for instance, paid for the caretaking fee, room booking fee, and AV rentals for the weekend-long certification courses. Another event that benefited greatly from the funding is the annual IISE National Student Conference. The conference is hosted by a different Canadian university every year, and this year, it was held at Dalhousie University in Halifax, Nova Scotia. The money allowed for the club to temporarily pay for conference tickets and airplane deposits until the registration fee from the delegates was processed. This conference provides countless opportunities for professional development and education from team building events to multiple keynote speakers from different industries while also providing networking opportunities. This is a great way for students to connect with other IndE students and professionals across Canada in order to build their network.

The Industrial Engineering alumni community was contacted for our events. The Excel VBA, for example, was taught by an Indy 1T2+PEY, Joshua Belzile. In addition to educating students with practical Excel applications, he was able to bridge the gap between industry and UofT engineering through telling stories of his experiences and the lessons he's learned. This was valuable as students were exposed to examples of how technical skills can be applied. As well, many alumni were contacted to participate in an Alumni Mock Interview night. Unfortunately, due to scheduling conflicts, the event was not run, but all the alumni expressed interest to participate next year.

As always, the funding provided by FASE was imperative to the operation of events for IISE. It allowed for us to continue promoting the vision of the club which is to provide students with professional development opportunities and to gain technical skills applicable to industry.





First place winners of the IISE  
Conference Theoretical Exam,  
representing UofT (left to  
right): Clara Stoesser, Anitha  
Jeremiah, Rejuana Alam,  
Benjamin Leung

IISE National Student  
Conference Delegates at  
Dalhousie University (left to  
right): Back Row: Nicole  
D'Souza, Ritu Parikh, Anitha  
Jeremiah, Areeba Zakir,  
Christina Mo, Thanuja  
Vilvarajah, Rejuana Alam.  
Front Row: Alexander Blum,  
Bianca Rosiak, Vitoria Miranda,  
Clara Stoesser, Alexandra  
Portolos, Benjamin Leung,  
Dave Rajavickneswaran





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# UofT Iron Dragons

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## Total Amount of Funding Awarded: \$9,900

The University of Toronto Iron Dragons would like to formally express its gratitude and appreciation to the various engineering departments and divisions who have provided us with sponsorship funding this past year: the Department of Materials Science & Engineering, Mechanical & Industrial Engineering, Chemical Engineering & Applied Chemistry, Civil & Mineral Engineering, the Division of Engineering Science, the Edward S. Rogers Sr. Department of Electrical & Computer Engineering, the Engineering Alumni Association, and the Engineering Society.

Although the racing season has just begun, the generosity of each of these departments and divisions has allowed the Iron Dragons to kick off its 21st season with its largest roster of athletes yet. In particular, the allocated funds have enabled the Iron Dragons to execute a successful eight-month-long pre-season program, hosting weekly practices at Afterburn Fitness, a dedicated dragonboat training facility, and frequent team-building events. The remaining funding will support Iron Dragons' boat practice and regatta entry fees over the summer months. Over 80 undergraduate engineering student paddlers on the Iron Dragons' two competitive crews and one recreational crew will continue to benefit from department and division contributions.

Looking from a wider lens, this funding has fuelled the mission of the Iron Dragons to enrich and benefit members of the Skule community. The Iron Dragons' ability to engage over 200 engineering students during tryouts, and over 80 undergraduate engineers on its crews, is only possible with the generous support from the engineering departments and divisions. Further, the team benefits from the coaching expertise of eight U of T engineering alumni, many of whom were members of the Iron Dragons roster during their undergraduate years. Department and division sponsorship has been crucial to executing the team building and training events necessary to help undergraduate engineers develop personally, both in and out of the boat. Most importantly, this support allows the Iron Dragons to compete and show the broader community what U of T Engineers are capable of.

The contributions of the engineering departments and divisions are indispensable to the Iron Dragons. Without their sponsorship, the Iron Dragons would not be able to maintain its high crew capacity and quality of programming and training. The low team fees that their funding allows the Iron Dragons to sustain enables all engineering students to partake in the sport of dragonboat paddling. It is not an exaggeration to state that the Iron Dragons would not exist without the generous contributions from each of the departments and divisions in the Faculty of Engineering. As such, the Iron Dragons hopes to continue its partnership with these generous sponsors to help reach a common goal of improving and enriching the engineering student experience—the Skule experience—for years to come.





**Top left to right:** Cindy Lian (EngSci 1T9), Anna Ye (EngSci 1T8), Carol Suarez (Mech 1T8T1), Lisa Ma (Civ 1T7+PEY), Njeri Fraser (Chem 1T8), Mercedes Ing, Amy Zhao (MSE 1T6+PEY), Sarah Moasser (Chem 1T8), Sarah Neuenhagen (Civ 1T8), Emma Storimans (MSE 1T9), Dawn Virginillo (Mech 1T6+PEY). **Bottom left to right:** Rebekah Kim (EngSci 1T9), Shems Saleh, Lauren Ip (Indy 1T9), Ivana Lee, Gina Kim (Mech 1T7+PEY)



**Top left to right:** Howard Fung, Jeffrey Nguyen (EngSci 1T9), Justin Leung (EngSci 1T7+PEY), Bogdan Raspopin (ECE 1T8), Milan Crnjanski (Mech 1T9), Victor Ko (ECE 1T6+PEY), Jacky Lei, Clement Ho (ECE 1T8), Colin Roth, Nicolas Luy (MSE 2T0), Michael Won (EngSci 2T0), Jonathan Correia (ECE 1T6+PEY), Daniel Villavicencio (ECE 1T8), Joey Zhou (ECE 1T9), Han Wu (Mech 1T8), Nathan Pua (Indy 1T6+PEY), Nikolas Mastandrea, Elijah Wigmore (ECE1T7T1+PEY). **Bottom from left to right:** Alex Wang (EngSci 1T9), Raymond Chou (Indy 1T8), Jimmy Hou (EngSci 1T9), Daniyar Akmedjanov (EngSci 1T9), Hweedo Chang (Mech 1T6+PEY), Chris Natale (EngSci 1T8).



# Materials Industry Club



## Total Amount of Funding Awarded: \$2,375

Materials Industry Club (MIC) was awarded \$2375 for the 2016-2017 school year provided by Engineering Society, Engineering Alumni Association and the Departments of Materials Science & Engineering (MSE), Chemical Engineering and Mechanical and Industrial Engineering.

During the fall and winter terms, funding was used to organize and execute a recruitment event and professor research showcase, host guest speakers and provide students with valuable interviewing skills during a Speed Interview event.



In addition to providing members the opportunity to attend externally organized events, one of this year's goals was to host our own functions on campus for improved accessibility and student involvement. Our first event of the year was a recruitment information session to welcome students of all disciplines and familiarize them with our club's mandate, professional society opportunities and promote student involvement. The annual research showcase traditionally organized by MIC allows students to meet professors and familiarize students with research within the Faculty. This helps students see life beyond the classroom and steps they could take to pursue research and industry connections.

Our headlining event was the Alumni & Friends Speed Interview night during which students were interviewed by alumni, faculty and industry professionals to gain experience for upcoming job interviews. Funding was used primarily for logistics to secure a professional, accessible and welcoming environment on campus at Hart House. The event received excellent feedback from all participants - interviewers were enthusiastic and excited to partake, undergraduate and graduate students found the event valuable - particularly for those looking for PEY and summer positions. The eight MSE graduates who returned to interview current students also found the event to be useful in developing professional skills. MIC often draws on experiences, insight and involvement from alumni - we find former students are enthusiastic when asked to partake in our functions.



MIC relies on yearly funding to ensure students gain meaningful exposure to the opportunities that many professional societies and networks extend to our students. It is important to get students involved in these events - attendance is often the greatest hurdle especially with busy schedules. Funding provides registration reimbursement, transportation costs and refreshments - professional development then becomes affordable and attractive to students.



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# Materials Science and Engineering Club

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**Total Amount of Funding Awarded: \$2,397**

**Examples of How the Funding Was Used:**

The funding was mostly used to cover the expenses of two main events: the MSE dinner dance and Iron Ring Party. There are also other minor events such as coffee house, sport tournaments and Secret Santa that required funding. Some of the main costs for mentioned events include venue, security, buses, food, promotional materials and awards. In addition, funding received went towards acquiring spirit wear (patches, t-shirts), and maintaining the undergraduate common room.

**Share specific stories of how the funds assisted your club's work, which, in turn, contributed to the vibrant spirit of our Skule community or impacted the wider community:**

The MSE Club actively organized social and sporting events for undergraduate Materials Science and Engineering students in order to build an MSE Community. Through hosting PEY, Graduate School panels and creating academic calendars MSE Club contributed to the professional development of students; additionally, these events, along with F!rosh events, increased the visibility of the Materials Science and Engineering department. For instance, the funding allowed MSE club to host events such as coffee house where undergraduate students participate through performing their talent or attending a part of the audience and supporting their peers. It brought spirit and a sense of unity to the community as a whole.

**Why was this funding important to your club? Please also indicate all sources of funding from the Centralized Process for Student Initiative Fund:**

Main sources of funding for MSE club is from engineering society of University of Toronto, CPSIF and Gratitude funding. Aside from their funding, the club's revenue is limited to selling of MSE spirit wear and holding bake sells. Hence, funding from CPSIF is essential for the future survival of MSE Club.



# Materials Science and Engineering Graduate Student Association (MSEGSA)

**Total Amount of Funding Awarded: \$3,300**

## Examples of How the Funding Was Used:

Name of the Event	Date	Budget
Impact Speaker Seminars	Oct 27, 2016	\$ 425.99
	Jan 26, 2017	\$ 362.40
	Feb 16, 2017	\$ 321.32
Halloween Pumpkin Pie / Latte Event	Oct 16, 2016	\$ 43.05
Ping-pong table purchase	Nov 12, 2016	\$ 379.68
Movie Night	Nov 29, 2016	\$ 93.66
Christmas Lunch / Secret Santa	Dec 8, 2016	\$ 519.03
MSE Graduate Research Day	Feb 24, 2017	\$ 197.16
St.Patty's Green Pancake Day	Mar 16, 2017	\$ 168.48
MSEGSA Ping-pong Tournament	April 18 - 20, 2017	\$ 108.77
Friday Coffee Breaks (coffee/cookies)	Every Friday	\$ 522.74
<b>Total:</b>		<b>\$ 3,142.28</b>
<b>Current Balance</b>		<b>\$ 157.72</b>

**Share specific stories of how the funds assisted your club's work, which, in turn, contributed to the vibrant spirit of our Skule community or impacted the wider community:**

**Impact Speakers Seminar:** Alumni and industry associates were invited to share their working experience and career expertise with the current graduate students in the department. The stories shared by the guests were an eye-opener for many of the graduate students as many of them have not been exposed to the industrial environment. Funding was used to provide gifts to the guests. Furthermore, funding was also used to provide complimentary lunch to the students in order to encourage them to attend the talks.

**Friday Coffee Breaks:** The CPSIF funds provided to the MSEGSA allowed us to create an environment where Graduate Students in the Department could connect, socialize and form a tight community. At the same time, several technical and administrative staff began joining the coffee break to better connect with the graduate students as well. A portion of the CPSIF fund was used to purchase the coffee and cookies for the coffee break to provide a relaxing atmosphere and encourage participation.



**MSE Ping-pong Tournament:** Many of the graduate students spend long hours in the laboratory and do not have enough exercise. The purpose of this multi-day competition is to promote healthy lifestyle and encourage physical activities. Funding was used for prizes and light refreshments for the event. The event attracted about 30 participants.

**Why was this funding important to your club? Please also indicate all sources of funding from the Centralized Process for Student Initiative Fund:**

We received \$3300 from the Centralized Process for Student Initiative Fund, and this funding was important for our club because this is the biggest portion of our budget and we had to rely on it the most to provide events and activities for our student body.

**Did your club engage any alumni (whether as participants, coaches, speakers, volunteers)? Please indicate which alumni, how many alumni, the dates of events and in which capacity they participated (if applicable):**

Yes, our club engaged alumni as our guest speakers for the impact speaker seminars. We had two alumni speakers (Weijia Zhang, MSE OT8 and Adam Roop, MSE OT1) on October 27th, 2016 and January 26th, 2017.



Movie Night



Christmas Lunch / Secret Santa



St. Patrick's Green  
Pancake Day



# Mechanical Engineering Club



## Total Amount of Funding Awarded: \$5,500

The Mechanical Engineering Club operates under the Engineering Society's Discipline Club umbrella, acting as the student group that represents the entire undergraduate student body of the specific engineering discipline. For the funding period of 2016/2017, the Mechanical Engineering Club set objectives to foster a welcoming and tight-knit community among the students by providing opportunities for students of various years of study to meet and share their experiences about the mechanical engineering undergraduate program and by providing social events for students to relieve their stresses and get to know their peers in non-academic settings.

The Mechanical Engineering Club was awarded \$5500, where \$5000 was awarded by the Department of Mechanical and Industrial Engineering and \$500 was awarded by the Engineering Alumni Association. The following is a list of the more notable events for which the funding was used, some of which are further detailed:

### **Mechanical Industry Night – January 24, 2017:**

The second annual Mechanical Industry Night saw 30 undergraduate mechanical engineering students meet 6 alumni from the same program to hear firsthand about the various career paths that result from obtaining a B.A.Sc. degree. Each alumnus came from a diverse career background, from consulting to construction to business, and the students benefitted from hearing how each alumnus used the knowledge and skills they have obtained from their studies towards their current job. Such an event allowed for students to gain a better insight into what pathways are available to them once they complete their program, while allowing alumni to give back to their undergraduate program by connecting with current students.





**Iron Ring Reception and Party (*collaboration with Industrial Engineering Club*) – March 4, 2017:**

The funding allowed for the graduating class from the undergraduate mechanical engineering program to enjoy a reception and party after the formal Iron Ring Ceremony to celebrate this milestone accomplishment with their peers and family

**MIE Coffee House (*collaboration with Industrial Engineering Club*) – March 23, 2017:**

The annual MIE Coffee House is an opportunity for students to showcase their non-engineering talents, in whatever form it may be, and also for professors/instructors to showcase their talents as well to the students. The funding allows for the event to be created with a greater appeal, resulting in around 100 attendees coming out to enjoy the showcase put forth by the students.

**Therapy Dog Session for exam stress relief – April 20, 2017:**

The first ever therapy dog session organized by the Mechanical Engineering Club was scheduled during the final exam season in second semester. As this time is identified as the most stressful period for students, funding was used to invite trained therapy dogs into a study space to provide stress relief to students. The students who stopped by during the session benefitted from interacting with the friendly dogs.

**Common Room and Class Social Events – throughout the year:**

Throughout the school year, various common room social events were organized to provide stress relief and allow students to interact with each other in a more casual setting, allowing a more welcoming environment to be created within the mechanical engineering community. Each of the Class Representatives in the Club were allocated funding to organize socials within each of their respective classes to build a more open and supportive network within the same year of study.

The funding awarded to the Mechanical Engineering Club allowed for a welcoming and tight-knit community to be fostered through various events, while allowing for networking opportunities amongst students and alumni. The support by the MIE Department and the EAA is greatly appreciated in its contribution towards the initiatives and objectives of the Mechanical Engineering Club.





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# MechEngage



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## Total Amount of Funding Awarded: \$500

MechEngage, the student club, was awarded with a total \$500 for the academic year of 2016-17. This funding was critical for the successful year MechEngage had. The funding allowed MechEngage to buy several equipment for Arduino workshops. This equipment, under the ownership of MechEngage, will make it easier for MechEngage to host workshops in the future.

Furthermore, the funding allowed MechEngage to not raise the cost of SolidWorks workshops with the current inflation rates. MechEngage was able to host several workshops in both semesters and provide food and printed certificates to all participants through a fee of only \$5. Without the funding, spending money on food, certificates and electronics would drain the meagre funds MechEngage possesses. MechEngage received funding from the Mechanical & Industrial Engineering Department as well as from EngSoc.



# MIE Mentorship



## Total Amount of Funding Awarded: \$1,000

During the 2016-2017 school year, our main expense was the purchase of gift cards to coffee shops and vouchers for activities, such as escape rooms, which were used as prizes and incentives to promote communication between mentors and mentees. A portion of the funding was also put towards purchases of food, refreshments and supplies for the events hosted for all club participants, namely the kick off events and mentor/mentee meet and greets.

Something that all clubs are challenged by is maintaining members' interests and increasing attendance at their events hosted. One initiative that MIE Mentorship undertook last year was to approach member participation in a more indirect way. The funding was used for gift cards and activity vouchers awarded through social media competitions. Submitting an entry involved mentors and mentees getting together to take and tag photos at certain locations which provided incentive for participants to get to know each other but still gave them the flexibility to do so at their leisure.

MIE Mentorship is an organization that enhances the student experience at the University of Toronto on both academic and extra-curricular platforms. It brings upper year Mechanical and Industrial Engineering students together to guide first year MIE students in their adjustment to university life and provide them with valuable guidance concerning the unlimited possibilities and challenges that the engineering community has to offer.





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# Mineral Engineering Club

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## Total Amount of Funding Awarded: \$400

### Examples of How the Funding Was Used:

**First Year Mentorship Program:** A meet and greet in early September was organized by the Min Club to engage 1st year Mineral students with upper year students. This program was quite successful and connected over a dozen 1st year students. Money was allocated in order to buy food and refreshments for all people participating. This is an event we will continue annually in order to ensure that students are connecting immediately to upper years and do not feel dis-engaged from the Mineral family. These students were able to connect with their mentors throughout the year for help and general advice.

**First Year Welcome Lunch:** All first years were invited to attend a lunch during frosh week that included third and fourth year students. The goal was to get the students engaged in the mining industry, share tips on success, allow them to meet some people they can lean on if they needed help, and have some free food! The event had over half of the entering class in attendance and really helped break down some of the nervousness for the students who were starting classes the next day. We will continue this event annually as it is a quick initial event to start trying to build a community.

**PEY/Summer Internship Talk:** Another successful event that will be done annually was to have graduating students who had completed PEY to talk about their experience with all the min students. All years were invited and the event had over 20 attendees and 5 speakers. As Mineral engineering is not always a student's first love and because it's such a diverse field, showing the wide range of career opportunities is essential to not lose the students. We need to make sure that students understand how diverse their degree is and transferring out is not always the best option or that you don't have to be "an underground miner" your whole life. Each speaker had a different work term, with different challenges in different locations: government, oil & gas, international gold mining, and working with a contracting firm were all explored. Students were also informed about when to apply to some companies, what they are looking for, how to network, and how we can help them or they can leverage their contacts! The event was very successful and will continue going forward.

**Civ/Min Dinner Dance:** Mineral Engineering, as is tradition, helped support the Civil and Mineral Engineering Dinner Dance that was held at the Eglinton Grand. Of the over 250 guests, over 50 were Mineral Engineering students related. Additionally, faculty from the Civ/Min office were in attendance. This is an integral event of the engineering culture at U of T and SKULE. The event was fantastically organized, by the Civil Engineering club, and we were able to enjoy ourselves, mingle with civil engineers, and strengthen our network before graduation. Events like this dinner dance also allow students to dress up and understand the formal atmosphere that is required in the business world. This event is annual and will continue to be supported by Mineral Engineering funding.

**Min Din at Copacobana Steakhouse:** Another annual event, specific to the Mineral Engineering faculty, is to all get dressed up and go out for one final dinner. Several professors and key faculty members come out as well,



adding to the atmosphere and creating a sense of community outside of the teaching setting. Students are able to meet each other, talk to professors not just about school work, and develop long-lasting memories. This year's event was held at the Brazilian steakhouse, Copacabana. Over 50 people, including students and faculty, were in attendance. Alumni were in attendance as well, including Brock Tomlinson and Guarav Acharya. We will continue to promote this event to other alumni as it is a fantastic way for students to become connected to the growing network that is Lassonde Mineral Engineering graduates.

**Iron Ring Reception:** As is tradition, all graduating engineering students that qualify can attend the Iron Ring ceremony, held in Convocation Hall. After the event, all Civil and Mineral Engineering graduates and their guests were invited to the Polish Hall on St. George Street, south of college. Over 20 Mineral students attended the Iron Ring ceremony. The Mineral Engineering club helped fund the event in conjunction with the Civil Club and the Civ/Min Office. This is a fantastic event and is the best way to finish four hard years of Mineral Engineering. Everyone was able to meet their friend's families and share in the proud moment. This event is essential to engineering and Mineral Engineering at U of T and will continue to be funded.

**WIM U of T Chapter Contribution:** The Women in Mining association, a fantastic association that promotes women in mining, has a University of Toronto chapter. Aurora Zhang, a mineral engineering student, is a prominent member of the club. Upon her request and to support the WIM chapter at U of T, money has been allocated to support them for events throughout the year. Unfortunately, we were not able to give her the cheque this year; consequently, the money has been allocated and a cheque will be written to WIM for this year and the coming year as well. This is an important association that we will continue to support. They had several prominent female speakers throughout the school year giving enriching advice and networking opportunities.

**PDAC Student Funding:** PDAC (Prospectors and Developers Association of Canada) hosts an annual convention in downtown Toronto each year in March. All the mineral companies, suppliers, consultants, and governments from all over the world congregate to share ideas and network. Additionally, in a field where networking and in-person conversations are critical to success and job placement, students have the ability to meet everyone at the conference and learn about real projects and problems in the industry. These 4 days are as enriching as any classroom lecture or course during undergrad. The mining industry is very practical; consequently, we needed to sponsor students to go to the event and get introduced to that critical experience. Through your generous funding, we were able to send more than a dozen students to PDAC conference. This funding will be continued for years to come as it is essential in order to build well-rounded Mineral Engineers that are ready for the job hunt and mining industry. School is not enough to prepare one to be successfully in job hunting in the industry.

**Why was this funding important to your club? Please also indicate all sources of funding from the Centralized Process for Student Initiative Fund:**

Without your generous funding to the Mineral Engineering club, the Lassonde Mineral Engineering would have extremely good academic students, who go to school, work hard, and go home. This funding, along with the engaged staff in the Civil and Mineral Engineering Office, allow the Mineral Engineering Club to organize and sponsor events that help engage and enrich student's time while at U of T. Funding is critical to the success of the student experience as well as it allows our U of T students to develop into well-rounded engineers. These experiences help promote the U of T brand and Lassonde Mineral Engineering throughout Canada and after graduation. I know I will still be talking about the PDAC convention, Iron Ring Reception and the Min Din at



at Copacobana as examples of how Mineral Engineering at U of T is a fantastic program that develops engineers ready to join the working world and become leaders in their field.

This funding allows for the development of Mineral Engineers' Emotional Intelligence (EQ), something that engineers are not always known for. These events allow for this development and allow our students to not just be the top academically, but rise to a higher level of employability and become well- rounded engineers, comparable to the best of the best in North America. I am very proud to have used this funding for these events as shown through the PEY placement, student retention, and graduate job placement this year, that events like these, however small a difference, help create the program we have today.

**Did your club engage any alumni (whether as participants, coaches, speakers, volunteers)? Please indicate which alumni, how many alumni, the dates of events and in which capacity they participated (if applicable):**

Alumni were engaged on two occasions:

1. Copacobana steakhouse for Min Din as mentioned above
2. PDAC Alumni Reception – Organized by the Civ/Min office annually. This event invites alumni and guests from the LME program as well as current students who are attending the PDAC conference. The majority of the students who attended PDAC attended the reception, allowing for networking with recent graduates working throughout Ontario. Additionally, this event served again as practice on how to be professional and network outside of a classroom setting. Well over 10 alumni were in attendance at the Royal York Hotel.



# Multidisciplinary Analytical Kinesthetic Education (M.A.K.E.)



**Total Amount of Funding Awarded: \$1,050**

## Examples of How the Funding Was Used:

The main use of the funding was to support our workshops in terms of:

- Buying refreshments for every workshop event
- Buying materials for the workshop event. These materials were provided to participants to make their own prototype which they could take home. Some example of the materials bought include:
  - For the Material Bridge event: wooden popsicles sticks, screws, superglue
  - For the Paper Speaker event: magnets, batteries, audio cables, mini amplifier, alligator clips, paper plate, wire, tape
  - For the Water Electrolysis workshop: epson salt, batteries, spoon, container, purple cabbage

## Share specific stories of how the funds assisted your club's work, which, in turn, contributed to the vibrant spirit of our Skule community or impacted the wider community:

The funds helped us in providing for materials and refreshments which in turn allowed the proper running of the events. These events empowered the attendees to see beyond what is present in theory and apply their knowledge to the practical, which in turn helped them in various Skule events (E.g circuit design for builds).

## Why was this funding important to your club? Please also indicate all sources of funding from the Centralized Process for Student Initiative Fund:

The funding was used to finance the material and food needed for the workshop to be a success. It gave the opportunity for participants not only apply the theory they learnt in class in the real world but also allow them to make their own prototype that was designed by the technical lead.

## Did your club engage any alumni (whether as participants, coaches, speakers, volunteers)? Please indicate which alumni, how many alumni, the dates of events and in which capacity they participated (if applicable):

Throughout the past two semesters, the club engaged two alumni for operations, Shayne Lin, EngSci 1T4+PEY as the club advisor and Janany Ragunathan, CIV 1T4 + PEY as our club president.



This picture comes from our Make Tensegrity event with Angela Chen (EngSci 1T8 + PEY) being the instructor for the day. Her workshop introduced the concept of tensegrity structure which introduces a more applied use of stress and strain. The workshop gave the students the knowledge required to build such structures and apply the said concepts in different scenarios.



# National Society of Black Engineers (NSBE)



**Total Amount of Funding Awarded: \$3,850**

## Examples of How the Funding Was Used:

**D-Battle #1 (with Skule Dance):** This year's D-Battle was held on September 8th in partnership with Skule Dance. Both teams spent the summer working on an advertising plan that allowed for students that weren't familiar with the event to actually get a taste of what they could expect. The main funding costs that were needed were the costs for the DJ, judges, bake sale and the prize money for the Battle winners.

**Resume Workshop:** The resume workshop hosted in partnership with Deloitte was an event geared to individuals who wanted to find PEY placements, summer internships or full time positions. Four members from Deloitte came to help students in fine-tuning their resumes and giving advice on what employers expect from their applicants.

**Fall Regional Conference:** This year, 3 of our NSBE members (Nicole Deterville, Portia Deterville and Xandra Frasier) travelled to Niagara Falls, New York for the Region I Fall Regional Conference. Along with participating in informational workshops on professional development and academic excellence, the three students also participated in the regional Academic Technical Bowl (ATB). Although they did not place, they received a lot of experience and ideas to help them in the National ATB to be held in Kansas City.

**Alumni Mixer and Mentorship Program:** This year's alumni event was focused on making new connections and allowing new members to interact with past members. The funding was used to purchase food and drinks for the attendees.

**National Convention Information Session:** As a kickoff to this year's convention, the info session was held to give members who planned on attending, the opportunity to learn the benefits of participating in convention and what they could expect.



**Share specific stories of how the funds assisted your club's work, which, in turn, contributed to the vibrant spirit of our Skule community or impacted the wider community:**



**First General Meeting:** This event was this year's first general introduction of the club to the student body. All club officials were introduced and all attendees were given a rundown of the year's events and ways that they could get involved with the club. The funds were used to purchase food for all the attendees. This event allowed us to get more people aware of the club and also improved our member turnouts throughout the rest of the year.



Fall Regional Conference: At this years FRC, Nicole and Portia were selected as finalists in the NSBE Draper Laboratory Technical Challenge Completion. Nicole's topic was allergen detection technologies and smartphone applications and how mobile sensing can be combined to provide personal safety from such threats. Portia's topic was on testing water portability and how we can improve current testing protocol to increase the speed/decrease the cost in testing for contaminants. Both students gave a 10 minute presentation followed by a 10 minute question and answer period. Nicole finished in 3<sup>rd</sup> place and was awarded a \$500 USD scholarship while Portia finished in 2<sup>nd</sup> place and was awarded a \$1000 USD scholarship.

NSBE High School Conference: This year, we were able to organize a high school conference that involved motivational speakers and industry professionals that spoke to students about their journey. Students also got the opportunity to participate in an aviation activity that challenged their plane making abilities as well as their ad creation skills. The funds were used to provide lunch for all participants, complimentary "swag bags" and to purchase gifts for our speakers.



Left to Right: Nicole Deterville,  
Xandra Fraiser and Portia  
Deterville at the 2016 Region I Fall  
Regional Conference



Picture of NSBE U of T and NSBE McMaster  
Students who attended this year's National  
Convention

43rd Annual NSBE National Convention (Kansas City, Missouri): Part of the CPSIF funding went to registering some of our members for this year's convention in Kansas City. 12 NSBE members got the opportunity to attend convention with some also taking part in various competitions. Tolbert Akanni, Nicole Deterville, Portia Deterville, Xandra Fraiser and Josh Efe came in first place in the Academic Technical Bowl winning the top prize of \$1000USD. Tolbert, Nicole and Portia also partnered with Tope Ajayi to participate in the Boeing Flight Competition. Although the group didn't receive any awards, they got the opportunity to work with Boeing professionals and took away some very useful tips for next years competition.

### **Why was this funding important to your club?:**

This funding was important to our club because it allowed us to fulfill the goals that we set out to achieve at the beginning of the academic year. Running a student club can be very limiting when there is not enough funding available. Receiving the Centralized Process for Student Initiative Funding this year allowed us to host events like the high school conference, which align with our mission statement. By connecting with younger students who may not know about the present opportunities in STEM, we are providing them with the option to pursue careers in fields like engineering when they grow up.

### **Did your club engage any alumni (whether as participants, coaches, speakers, volunteers)? Please indicate which alumni, how many alumni, the dates of events and in which capacity they participated (if applicable):**

Ace the Interview Series — September 15th, 2016: Hassan and Houssein Djirdeh, along with a few of their colleagues from Deloitte, partnered with NSBE to help students with tips for screening and to better understand what Deloitte is looking for in their application process. Both Hassan and Houssein worked on assisting students by critiquing resumes and cover letters.



# NSight Mentorship Program

**Total Amount of Funding Awarded: \$900**

## **Examples of How the Funding Was Used:**

Among the many events that we were able to run with our funds for the mentors and mentees, our most successful ones included our introductory Mentor/Mentee Icebreaker Mixer, Student/Professor Mixer, our well-known series of Option Talks and our concluding event: Switching Out/Staying in EngSci.



### **Mentor/Mentee Icebreaker Mixer:**

In order to kick off the year, NSight is hosting a new event to bring together the first year mentees with the mentors in a community event. This event was hosted successfully on the above date, as mentors and mentees played icebreaker games to help mentees to get to know their upper year mentors, and their mentors gave introductions of themselves to their mentees. The event also served as an information session for the mentees to help them know how to best use their upper year resources. More than 100 people attended this event. Linked to this event was our Mentor Training Session where mentors were informed about their roles and were given the opportunity to meet their co-mentor and other peers.

### **Option Talks:**

Choosing an option for Engineering Science students can be a difficult decision as there are several, each with their own benefits and alignment to students' interests. In order to help students make their decisions, we invited upper years to provide information on what it is like to be in their respective options and how they arrived at their decisions. Of course, students could also ask any questions they may have about a specific option. A total of 4 such sessions are held in the series, and last year, each session was attended by over 40 students. Each session aimed to also compare certain pairs of options that students might be considering such as Aerospace and Robotics. This event was the most useful to our first and our second year students. The funds were used to provide refreshments and gift cards as a small token of gratitude to our speakers.



### **Student/Professor Mixer:**

This event is meant to help first and second year students get to know their professors in an informal setting. We invited seven professors to this event in a lecture room, where approximately 30 students attended. We played an icebreaker game, gave professors opportunities to introduce themselves, and gave students time to have informal conversations with their professors. We received good feedback on this event as being fun and informative for the students.



**Switching Out/Staying in EngSci:**

Each year, a significant number of Engineering Science students from first year decide to switch out to another program. To help them make their choices easier, this event is held to help them understand the pros and cons of switching out, and to answer what questions they may have regarding this decision. This event was also the most useful for our first year students as we invited current students who are in EngSci and former EngScis to talk about their experiences.

**Share specific stories of how the funds assisted your club's work, which, in turn, contributed to the vibrant spirit of our Skule community or impacted the wider community:**

The funds allowed us to provide information packages, refreshments and food for events. During these events, we were able to unite our audience, the first year Engineering Science Students, with their mentors and other upper year students.

Transitioning from high school to university can be a difficult experience, especially in a challenging program such as Engineering Science. NSight helps first-years adjust to university life, while providing them with opportunities to network with upper-years and professors. Activities in group settings will also help mentees to get to know each other better, and allow them to form bonds and friendships. Throughout the year, students will be confident in the knowledge that there is someone they can trust to answer their questions and help them through the tougher parts of Skule life.

Building upon student feedback, NSight provides a chance to network with upper years, get a glimpse of the program from a student in fourth year and to discover the City better through its various events. For example, at the Option Talk Series: A student stated: "I was so confused about choosing my Option. I wanted to hear from students about these options because to be honest I wasn't sure what to ask professors. Knowing that these student speakers have been in my shoes is very reassuring!"

NSight has helped people of common interests join together. Fostering the connection between upper-year and first-year students improves friendships and provides a positive environment for everyone. A student stated: "Coming internationally, I don't have many connections. Getting close to my mentor helped me get comfortable in a new city and new program."

**Why was this funding important to your club? Please also indicate all sources of funding from the Centralized Process for Student Initiative Fund:**

NSight believes that providing first years with an upper year mentor is invaluable to an engineering student, and is committed to providing the best experience and advice to incoming high school students. NSight receives the application for mentorship from mentees and mentors alike, and pairs them based on the diverse interests of the student body and information received from interviews of mentors who have applied. Furthermore, NSight hosts a variety of events tailored to the needs of the mentees and even upper years at important dates of the year. The sources of funding were from the Division of Engineering Science and the Engineering Alumni Office/Dean's Office.

**Did your club engage any alumni (whether as participants, coaches, speakers, volunteers)? Please indicate which alumni, how many alumni, the dates of events and in which capacity they participated (if applicable):**

This year we unfortunately could not engage any alumni because we received requests to meet other upper year EngScis who have either recently graduated, are in PEY or are still in school.



# Ontario Water Works Association (OWWA) University of Toronto Chapter



## Total Amount of Funding Awarded: \$600

Department	Funding Awarded	Funding Received
Engineering Alumni Association	250	Yes
Engineering Society	200	No
Division Of Engineering Science	50	Yes
Department Of Civil And Mineral Engineering	100	Yes
<b>Total</b>	<b>600</b>	

The Ontario Water Works Association Student Chapter at University of Toronto (OWWASC at U of T) would like to thank all of the above departments for supporting our events during the 2016/2017 school-year through Centralized Process for Student Initiative Funding. With your generous support, we were able to organize speaker seminars, a water treatment plant tour of RC Harris, as well as a movie screening at World Water Week.

The film screening (March 29, 2017) was of the documentary 'RiverBlue' in association with Ecologos as a part of Water Docs 2017 - a documentary film festival about all things water. River Blue is a film about the impact of the clothing industry on water quality. This project featured a post-screening discussion with filmmakers Roger Williams and Lisa Mazzotta, Fashion Takes Action representative Kelly Drennan, and GooderGoods representative Kelly Okamura. The project sparked conversation and raised awareness about how the fashion industry's harsh chemical manufacturing processes and toxic waste disposal methods are negatively affecting the health of rivers. The project was aimed at all disciplines of the undergraduate and graduate student community, as well as the public. The screening was attended by over 300 people. Images from the screening are shown in Figures 1 and 2.

Speakers at the seminars were alumni and people in the water industry, including Ian Hutcheson in September 2016 (Pinchin Ltd.), Satyendra Bhavsar in October 2016 (MOECC), and Peter Koumoulas in January 2017 (GHD). These events raised awareness about critical water issues and promoted exposure to advanced scientific issues. These events also created networking opportunities among students. Seminars, tours, and the film screening for World Water Week are important events for the OWWA UofT student chapter, as they attract new members and result in meaningful conversations about global water issues.





Figure 1: Panel Discussion on the environmental effects of the fashion industry with Elizabeth Hendriks of WWF-Canada, Kelly Okamura of gooderGoods, Filmmakers Roger Williams & Lisa Mazzotta, Kelly Drennan of Fashion Takes Action.



Figure 2: Audience at RiverBlue Film Screening



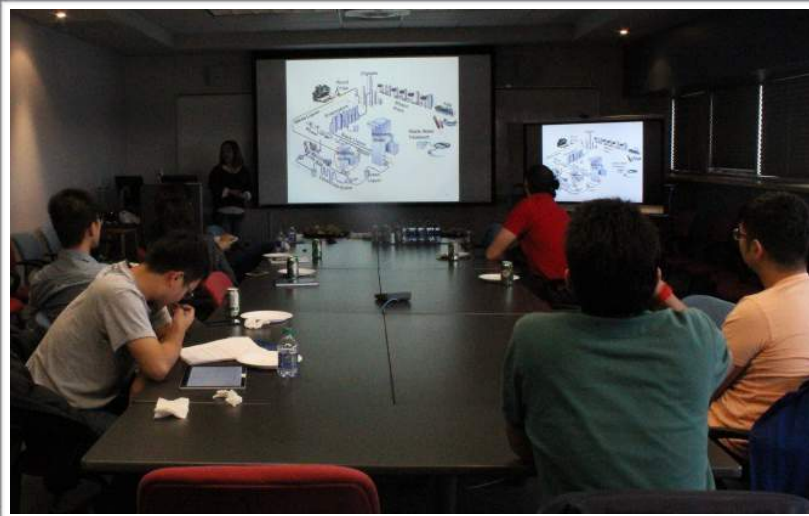
# Pulp and Paper Technical Association of Canada (PAPTAC)



## Total Amount of Funding Awarded: \$1,000

Pulp and Paper Technical Association of Canada (PAPTAC): University of Toronto Student Chapter, is grateful for your support! With your funding of \$1000, we were able to run numerous events to enrich graduate students' experience at the University of Toronto and help develop their professional skills. The picture below on the left shows a Video Montage event where students learned about the pulp and paper processes and interesting research projects at the University of Toronto through a series of engaging movie clips recorded in students' experiments. Another example of a large event we organized was the 2016 Science Rendezvous, in which we helped pedestrians attending the event to make paper from pulp, and the kids loved it. An improved version of this event will be organized again this year as part of Science Rendezvous, to celebrate 150 years of Canadian history.

PAPTAC Student Community: University of Toronto chapter looks forward to continuing the development of the engineering students interested in the pulp and paper and forestry industry. Your funding is very important for us to keep running events like these to benefit our students and the community around us. Without your help, we would not be able to offer the high quality of events that we have provided this past year. Thank you again for your support.





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# Project Include

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## Total Amount of Funding Awarded: \$1,250

The vision of Project Include is to teach computer programming to communities who lack access to this training. Over the summer, we organize coding workshops and bootcamps in low income neighbourhoods in the GTA, engaging student volunteers as instructors and leaders of the initiative. However, during the school year, we reached out to non-traditional groups of students at U of T, including communities within Engineering, that traditionally did not have much exposure to training in web development and computer programming. The funding from the Faculty of Applied Science was essential to the promotion of Project Include and the execution of the vision within the Skule community.

Our recruitment campaign attenuated the interest of over 150 UofT students, who applied for leadership positions as instructors, community liaisons and creative content designers. The funds were used to print posters, post cards, stickers, and banners that will be re-used for the years to come, in order to raise awareness for our initiative and attract students to these volunteer opportunities. This campaign increased our numbers to a total of 30 Project Include leaders devoted to inciting an appetite for coding within U of T and in the greater GTA community.

After recruitment, we were able to launch UofT Workshops where we used our talented instructors from the Skule community to engage students across campus to learn Python and HTML/CSS. A total of 57 students signed up for these workshops and the funds were used to provide resources for our instructors and students to enhance the workshop experience. Not only did our instructors have the opportunity to engage in curriculum development amongst fellow peers but they were also able to spread their Skule spirit by sharing learned experiences and impacting the wider UofT community. Another workshop was organized within the GTA community, at Marc Garneau high school, where we had the opportunity to create four inspiring one-hour workshops for over 100 high school students, and develop the community awareness and leadership skills for our Skule volunteers to succeed in their roles.

Lastly, the funds from the Faculty of Applied Science were used to engage the Project Include team in socials that would create a tightknit community within Project Include, increasing the flow of communication channels across members which lead to more efficient and effective events planning and execution.

Thus, we are extremely grateful to the Faculty of Applied Science for meeting the funds required to accomplish the goals that establish the foundation of our community work moving into the summer. With the acquisition of our team and the support of the Skule community, we intend to continue our vision in spearheading coding workshops across the GTA throughout the summer.





Figure 1 - Students learning Python in UofT Workshops



Figure 2 - Instructor Alex Li teaching coding concepts



Figure 3 - Project Include promotional material



# Robotics for Space Exploration (RSX)



## Total Amount of Funding Awarded: \$14,150

Our team, Robotics for Space Exploration (RSX), is a highly ambitious design club affiliated with the University of Toronto. We are a group of students that are passionate about technology, robotics and space exploration. The team works on a variety of space robotics design projects, ranging from terrestrial rovers to atmospheric payloads. Since our founding in 2013, RSX has grown from 5 members to over 50.

This year, we were awarded \$14150 which has allowed us to create a frame for our rover made entirely of extruded aluminum. This material, though more expensive, enables us to have a more modular design, and will allow us to reuse materials for future years. The Rover Arm was entirely reworked this year. It is now made of machined aluminum and driven by extremely precise and powerful stepper motors. Precision and accuracy were the main focus this year, and CPSIF funding has allowed us to achieve this.

In order to meet the new challenge at the URC (University Rover Challenge) for an autonomous rover, our software team has been working with LIDAR sensors to enable the rover to perceive its surroundings. Our rover is currently on track to be capable of performing tasks without any human input. CPSIF funding has also allowed us to use custom PCBs for our electronics. This contributes to greater electrical robustness and allows our electrical team members to showcase their organizational skills.

These funds will enable our team members to attend the URC in Utah. The URC takes place from June 1-3 this year, and CPSIF funding will be used to rent a vehicle and cover logistical costs, enabling a total of 10 members to represent RSX.

However, apart from participating in design competitions around the world, RSX also recognizes the importance of giving back and mentoring members of our own community. Since 2015, RSX has held competitions for engineering students as well as outreach events for younger audiences. A portion of our budget goes to hosting our annual Space Exploration and Engineering Competition (SEEK) which has seen increasing turnout every year. With CPSIF, we will be able to accommodate a larger number of UofT students, as well as host a similar competition for high school students. RSX also participates in an annual "Robots Rule" event where team members provide robotic demonstrations directed to an elementary-aged audience at the Ontario Science Centre. We hope to provide similar demonstrations and provide more mentorship to high school students interested in pursuing a career in STEM.

Overall, funding from CPSIF has allowed us to enhance the quality of our projects through new design and manufacturing capabilities. Over the past 3 years, we have invested a large portion of our budget to build up a repertoire of our own tools and machining equipment in order to be able to manufacture our designs. Even still, many of the manufacturing techniques that are accessible to most of our competitors are not feasible for us, and our ability to realize great designs is often limited by the resources available to us. Continued funding allows us to further re-invest in equipment and materials.



We have been privileged to receive funding from many organizations at U of T through CPSIF, where our top 3 major contributors include the Engineering Society, the Engineering Alumni Association, and the Division of Engineering Science.

In the past, we have engaged with several U of T alumni who contributed significantly to RSX. For example, On Nov. 5, 2016, RSX held an internal design review where a group of engineers, including alumni and former club members, gave feedback on our latest designs. Part of this group were two Skule alumni and former RSX members; RSX co-founder Rahul Goel and former mechanical team lead Fausto Fanin. The feedback we obtained helped tremendously as it allowed us to refine our design more than we have in past years.

We have managed to accomplish so much despite the young age of our club and the limited available resources, and all this has only been possible through the dedication of our executive and general members. With added funds from CPSIF and support from the University, we are confident that RSX's limit will only lie in the bounds of our imagination, because we truly believe that for us, "The sky is not the limit. It just gets in our way!"



Utah- Left to right: Abhishek Risbud, Askar Kasbekov, Fausto Fanin with the 2016 rover Carbon at URC 2016.



UTIAS - Left to right: Paul, Hudson, Ramsin, Feras, Sherif, Abhishek, Askar, Peter at work



# Skule Alumni Outreach Committee (SkuleAO)



## Total Amount of Funding Awarded: \$500

The Skule Alumni Outreach Committee, a directorship of the Engineering Society, was awarded a total of \$500 in funding from the Engineering Alumni Association (EAA) for the 2016-2017 school year through the CPSIF. The funding was used in a variety of alumni-student events including the SkuleAO BBQ, SkuleAO Winter Community Mixer and SkuleAO Spring Community Mixer on promotional material (i.e. postcards, buttons, banners), food/drinks/utensils for attendees, and gifts for guest speakers.

The SkuleAO Community Mixers helped to connect over 60 alumni and students together by hosting a networking workshop in collaboration with ILead to teach students and alumni the value and purpose of relationship-building followed by a networking mix-and-mingle to practice the skills learned from the workshop. In collaboration with the Skule Alumni Mentorship Program, YNCN and the Alumni Advancement Office, we reached 100 participants at the Skule Alumni Kick-Off Event. Additionally, we hosted the new SkuleAO Mock Skype Interviews event and brought alumni from a diverse number of industries to help students practice and improve their interviewing abilities. Lastly, upon the launch of the Engineering Connect platforms, we leveraged this platform to allow several alumni-student events hosted by other UoT clubs by advertising these opportunities, allowing alumni to contribute back to Skule. The funding provided us with the capacity to reach a larger alumni and student audience, in addition to hosting successful events that alumni and students found rewarding.

Alumni Participants from the SkuleAO Winter Community Mixer  
(November 23, 2016):

- Gene Chan
- Candice Chan
- Charles Grandfield
- Taabish Hasan
- Roy Houkayem
- David Jung
- Tiffany Ongtenco
- David Shindman
- Nico Valenton



Alumni Participants from the SkuleAO Spring Community Mixer  
(April 3, 2017):

- |                    |                 |
|--------------------|-----------------|
| • Bill Hollings    | • Jane Zhang    |
| • Candice Chan     | • Nico Valenton |
| • David Jung       | • Taabish Hasan |
| • David Gill       | • Tony Tsui     |
| • Gary Vivian      | • Vivian Chak   |
| • Leslie Goldsmith |                 |
| • Chris Zhen       |                 |





# Skule Arts Festival (SAF)



## Total Amount of Funding Awarded: \$1,800

Department of Materials Science & Engineering:	\$100
Department of Mechanical & Industrial Engineering:	\$150
Department of Chemical Engineering & Applied Chemistry:	\$200
Department of Civil & Mineral Engineering:	\$200
Division of Engineering Science:	\$50
The Edward S. Rogers Sr. Department of Electrical & Computer Engineering:	\$300
Engineering Alumni Association:	\$150
Engineering Society:	\$650

Our funding from CPSIF allowed us to bring fine arts into Engineering at the University of Toronto. Thanks to our funding, we were able to host various workshops, as well as our week-long arts exhibit and installation. We are able to provide all the materials free of charge, thus allowing anyone to express their artistic abilities.

A requirement of our yearly arts exhibit is framing for all of our submissions in order to present a uniform and professional image in front of the Skule community. For that, we need to buy sheets of mat boards to cut up into frames. The multiple sheets add up to being a significant expense, which we were able to afford thanks to our funding. We believe that our exhibit was a vibrant addition to the usual landscape at Skule, and a great outlet for our students to show off their non-engineering related talents.

At the end of our arts exhibits we host a silent art auction, auctioning off some of the submitted art. We used our funding to provide free coffee and snacks during the auction to the Skule community as a way to draw in more traffic. Thanks to the food, most of our auction pieces were bid on by the end of the auction, and our artists are thankful for the support.

We are most proud of our oil painting workshop this year. In previous years, we only hosted acrylic painting workshops, as oil paint is far more expensive and presents a bigger learning curve. This year, we were able to splurge on oil paints and introduce our club members to the advantages that oil paint offers, such as richer colours and a more lenient drying time. We were able to provide a unique workshop that casual artists would not be able to experience otherwise, especially if our University is their home away from home.





Another unprecedented event we hosted was our paper marbling workshop, which requires dropping ink onto a water surface to create swirl designs, and then placing a piece of paper on top to transfer the design. We had to buy a lot of new materials, such as ink, rice paper, and aluminum pans to hold the water. It is only due to our funding that we are able to host such an event which requires so much new material we did not already own. As a result, we are able to provide a new set of workshops different from previous years, which is especially important for returning club members of Skule Arts Festival, including alumni (we advertised some of our events on the UoT Alumni website, though it is difficult to discern between which attendees were alumni and which were not). It is only thanks to our funding that year after year, we can provide such events completely free of charge for our attendees.



Origami Workshop



Arts Exhibit 1



Arts Exhibit 2



# Skule Badminton Club



## Total Amount of Funding Awarded: \$550

The Skule Badminton Club is grateful to the Engineering Alumni Association and the Engineering Society for funding us for the 2016-17 school year.

The funding was used to promote the sport of badminton at various events such as our daily court hours and tournaments as well as to purchase communal equipment to enable students to play and learn badminton. The funds were also used to buy promotional materials, including a banner and stand. This funding has helped us promote the sport of badminton amongst undergraduate and graduate students. Students had the opportunity to learn about badminton in a safe and welcoming environment.



Registration Booth in the Pit, September 29, 2016



Winners of the Fall Mixed Tournament, October 15, 2016



Skule Badminton Club's Group Photo, October 15, 2016



Doubles tournament at the Sport Gym



## Skule Dance Club (SDC)

### Total Amount of Funding Awarded: \$400

Skule Dance Club (SDC) was awarded a total of \$400 from the Engineering Society through the CPSIF. The funding was used for food in our first semester General Meeting and SDC T-shirts for our Skule's Got Talent and Nocturne performances. Food in our first semester General Meeting helped us attract more students to the event and allow more students to learn more about how to join our club. Learning to dance as a newcomer is difficult and our club helps to facilitate a free and casual environment every week that's suitable for beginners and requires low commitment that fits with engineering student schedules. Additionally, the T-shirts served a few purposes: help to promote our club's brand to other students, form team spirit within the club and have a team uniform for our performances. Our member count has increased year-by-year and having a chance to perform or become dance instructors helped many of our members to find their passion for dance and build their confidence. This year, we performed/taught at the ILEAD Spring Fling End of Year Celebration, Pre-Frosh Matriculation, Frosh Week Matriculation, Civ Coffee House, among others. The funding for our club was important in helping us to retain and increase our member count, in addition to helping many beginners find their passion for dance.



Frosh Week Matriculation



Skule's Got Talent



ILEAD Spring  
Fling End of the  
Year Celebration



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# Skule Nite

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## Total Amount of Funding Awarded: \$5,000

Skule Nite 1T7 would like to thank the Engineering Alumni Association for awarding us \$5,000 in funding. Skule Nite is an annual musical and sketch comedy revue held at the Hart House Theatre, created and run by undergraduate engineering students. The show attracts an audience of over 2000 over its annual run of five performances in March. Engineering students from various disciplines contribute towards the writing of sketches, musical numbers, arrangements, set and costume design and fabrication. The cast, stage crew and technical team are nearly all undergraduate students who volunteer their time and effort to bring this incredible production to life. Skule Nite has been a huge part of the U of T Engineering community for over 90 years and inspires students, alumni, friends as well as students from other faculties every year, and its popularity and scale reach students across all faculties. Over 100 engineering students from diverse departments work all year to put on this amazing show.

The funding generously granted to us by the Engineering Alumni Association was used for the core building blocks of the production: materials for the set, props, costumes, equipment rentals, promotional marketing materials and space allocation for construction as well as rehearsal and performance. This year, we included a large monster puppet with glowing eyes and arms as well as complex costumes associated with the show's theme. This is also part of a strategic five-year plan to progressively increase the magnitude and quality of the show to match professional standards. Thus, the funds will also serve as an investment for future years in the form of better and professional equipment.

Skule Nite also includes participation from many alumni over the course of the year. During our auditions in September, around seven alumni help evaluate and determine the cast of the show. In late January, around five alumni return to help improve sketches that need rewriting. In February, around five alumni work with the show's cast to improve the acting in rehearsals. Just before the show in March, as many as 30 alumni return to watch the show, give notes on how to improve it, and work with the cast and crew on various projects. Skule Nite involves so many alumni that we can't list them all, but a few notable people who have returned recently to help improve the show include Jonny Sun and Kevin Vidal.

Overall, the funding we received from the Engineering Alumni Association helped this historic, inspiring show continue to improve and grow. We cannot thank you enough for your support.







# Skule Orchestra



## Total Amount of Funding Awarded: \$4,250

Skule Orchestra provides unique opportunities for engineering students and alumni who are passionate about performing and appreciating music. While we believe it to be an invaluable resource, it is not cheap to operate an orchestra. This year, Skule Orchestra received \$4,250 in funding through CPSIF, according to the following breakdown:

Department of Mechanical & Industrial Engineering:	\$50
Department of Chemical Engineering & Applied Chemistry:	\$100
Department of Civil & Mineral Engineering:	\$100
Division of Engineering Science:	\$750
The Edward S. Rogers Sr. Department of Electrical & Computer Engineering:	\$250
Engineering Alumni Association:	\$1,000
Engineering Society:	\$2,000

This is how our student club funding was put to use. The funds were used to rent concert venues in and around campus, to provide a space for our members to perform at one of our three yearly concerts. The use of these funds allowed us to keep ticket costs low at our concerts (only \$5 for students at most of our events), increasing the access and affordability of our events. This, in turn, allowed us to display the diverse talent of our students and alumni to a broader audience both inside and outside of the Skule culture.

Skule Orchestra engages alumni through active membership. A number of graduate students and alumni play in the ensemble each year. In particular, Tom Markowitz (ChemE Alumnus) and Kevin Major (CivE Alumnus) performed with the orchestra on violin and trumpet, respectively. More generally, Skule Orchestra strives to promote all our concerts through the Alumni Association, in order to ensure that alumni also receive the chance to experience and enjoy music performed by engineers.

Additional use of funds included purchasing a new and diverse selection of music to play, instrument rentals in cases where an orchestra member cannot feasibly provide their own equipment (e.g. percussion, piano, etc...), and helping to maintain and repair long-term percussion purchases made by the orchestra in previous years (e.g. timpani, bass drum, etc...)





The funding is important to our club because of the high cost of operation involved in running an orchestra. We have a strong belief that every student or former student should have the right to play in an ensemble and continue to develop their musical talent and experience. Crucial to this, we do not charge our members any fees for participation each year, and we make our concerts affordable and accessible for the Skule community at large. However, the costs of venue rental and maintaining our music library are not cheap (venue costs alone account for \$7,000-8,000 total across three concerts). The funding we receive allows us to make these opportunities available to all students for low to no cost.

We at Skule Orchestra want to thank you for helping us with the funds necessary to continue operation each year. Without your help, we would not be able to display the vast musical talent our engineers possess.





# Skule Smash Club



## Total Amount of Funding Awarded: \$300

### Examples of How the Funding Was Used:

A majority of our funding - exactly \$266.68 - was used for a room booking of SF1105, on Sunday, November 6, 2016. We had booked the room for the whole day, for an event that we held. This event was a viewing of a day of a weekend-long Super Smash Bros. tournament held in California, and streamed to the internet. We also set up our equipment for those who had wanted to come along and play a few games of Super Smash Bros.

Along with the above room booking, Skule Smash Club has received generous donations from two members of the Skule community within the 2016-2017 year. One had used his own money to buy chairs for our club, allowing members to sit while they play. This member also bought two controllers for use in the game - specifically for use by members of the Skule community who want to familiarize themselves with the Super Smash Bros. competitive scene. The other member bought a Nintendo Wii console for the club, as the console is a commonly used medium to play the game.

We had many plans for the 2016-2017 year, and with this limited funding, it was not possible to reimburse the two members of the Skule community who had graciously gone out of their way to use their own money to purchase necessities for the club. We were also unable to conduct other plans we had for the 2016-2017 year, which would make our work more efficient and strengthen our relationship with the ECE Club. Specifically, our plans were to purchase materials to build a cart that would help in transporting heavy equipment back and forth, and to build an area within the ECE common room so as to make our space within the room more compact, making the room more accessible to our members and especially to ECE students. With aging retro game equipment, ongoing tournament expenses, and being a work/play balance club, more funding allows us to host socials and draw more student and alumni to our events.

### Share specific stories of how the funds assisted your club's work, which, in turn, contributed to the vibrant spirit of our Skule community or impacted the wider community:

The funds helped a great amount in securing the aforementioned room booking, which was later reimbursed to the student who had made the booking. The event served as a time and place where members of the Skule community - and the competitive Super Smash Bros. scene in general - could come together and have a good time, watching and playing the game that they enjoy. Those who attended (about 90 people in total, 65 of which were members of the Skule community, and 2 UofT alumni - 1 UofT Engineering Alumnus). All in all, as a club that is focused on the Super Smash Bros. competitive scene within the Skule community, this event was a success.

### Why was this funding important to your club? Please also indicate all sources of funding from the Centralized Process for Student Initiative Fund:

The funding was important to our club, because as a club more geared towards hobbies/interests (specifically the Super Smash Bros. competitive scene), we want to show members of the Skule community that Skule isn't



only about school. That is to say, there's more to Skule than academia - there are so many ways for people to get involved in the Skule community and take their minds off of class. As a club that focuses on a video game series, we provide a great example of one of the many ways for members of the Skule community to de-stress, and think about something other than academia. All in all, the funding (and more funding in general is needed) was important to our club because it allows our club to be more efficient in a multitude of ways, making it easier in drawing students and alumni to our events, that otherwise wouldn't due to time constraints.

**Did your club engage any alumni (whether as participants, coaches, speakers, volunteers)? Please indicate which alumni, how many alumni, the dates of events and in which capacity they participated (if applicable):**

Skule Smash Club engaged 2 UofT alumni - 1 of which is an engineering alumnus - to our events. The engineering alumnus, Richard Mackay, had come as a participant to 4 of our events (weekly and semesterly tournaments). February 7, 2017, November 29, 2016, November 15, 2016, September 20, 2016, and the viewing party in SF1105 mentioned above - November 6, 2016. Richard had come simply as another participant within our weekly free tournaments, but provided an example to the engineering students that even after graduation, engineers can maintain their hobbies and interests.

The UofT alumnus (non-engineering), Nick LeBlanc, was both an active participant and a volunteer within the 2016-2017 year. This alumnus was a participant in all of our events (weekly tournaments held from September 20, 2016 to April 11, 2017 - with the exception of winter break), including the viewing party in SF1105 mentioned above - November 6, 2016. He was also a volunteer in the beginning of the year - assisting with set-up/take-down and transport of equipment. Nick also acted as a consultant to the club, at many times advising the executive members of the club as to which decision to make, and the direction the club should go.





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# Skule Stage Band

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## Total Amount of Funding Awarded: \$2,400

**(Background:** The Stage Band is an ensemble of 27 members in total, composed of mostly engineering students who are interested in playing jazz. This year, Stage Band will be more than 33 years old)

This year, Skule Stage Band was awarded \$500 from the Engineering Alumni Association and \$1900 from the Engineering Society through CPSIF. The funds were used to cover any immediate expenses that incurred when playing at a venue. This year, we had the opportunity of playing at the Engineering Science Dinner Dance, Cannonball, Gradball, and Suds. This included fees for transportation (cabs in particular) and food to feed band members after the gig.

These were extremely important in getting to venues and keeping the performers fit for performing. With the funds, we were able to play at various Skule events such as the ones mentioned above, and we were able to contribute to the enjoyment of fellow Skule members. In particular, we are proud to share that alumni of Stage Band from years before have approached us at gigs (Grossman's Tavern) and on social media to share their fond memories of when they were in Stage Band.

Student Club Funding is important to us for two reasons: the first reason is that it is our only source of immediate income. Other sources of income could take weeks or even months for us to obtain since the payment has been incurred, and this would put strain on the personal accounts of finance executives. Secondly, we always value the support of alumni and the engineering society in our mission of improving the Skule community by providing music and musicians in engineering an opportunity to continue playing.



EngSci Dinner Dance 1T6 after our set was finished. (From left to right): Shuyi Wu, Tom Zhang, Luke Foster, Jordan Lee, Adam Yaremko, Andrew Choi, Apurv Bharadwaj, Chris Renaud, Adrian Humphry, Lucas Finkeldey, Andrew Pickering, Matthew Silverman, Ali Haydaroglu, Jeremy Miranda, Shawn Seyoung Lee, Enzo Arpino, Seung-Hun Chung, William Wang, Borren Moe, Eric Deare, Tom Luo, William Bateman, Ishmael King. (On the floor): Adam Thomas, Stage Band Conductor.

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# Skule's Got Talent



## Total Amount of Funding Awarded: \$1,000

Skule's Got Talent (SGT) is a student-run committee that organizes events throughout the year, which provide students across all years of study and discipline the opportunity to express themselves artistically and showcase their unique talents. The committee received \$1000 from the Engineering Society, which greatly enhanced the quality of the talent show this year and thereby, the experience of all its participants. The funding SGT was provided this year made it possible to rent higher quality instruments and A/V equipment, and recruit an experienced photographer and sound tech for the show. These upgrades were extremely well-received by both performers and audience members. The funding also helped tremendously with promotions. The committee was able to hold information sessions for the auditions and the show, print quality posters to put up around the school and for the first time, purchase patches to hand out to performers as a complimentary gift. One of SGT's most successful events this year was 'Just Dance', which happened during Godiva Week. Though it was the middle of the day and most students were still in class, so many showed up to dance and let loose with their friends, and the event really helped to forge a sense of community. Every year, funding helps SGT achieve its goals of bringing students together to celebrate the rich diversity of talent that exists at Skule, and the Committee is extremely appreciative of the continued support.



Skule Dance Club



Elkebir Lamrani (MECH1T7) performing with his band, the Burger Factory





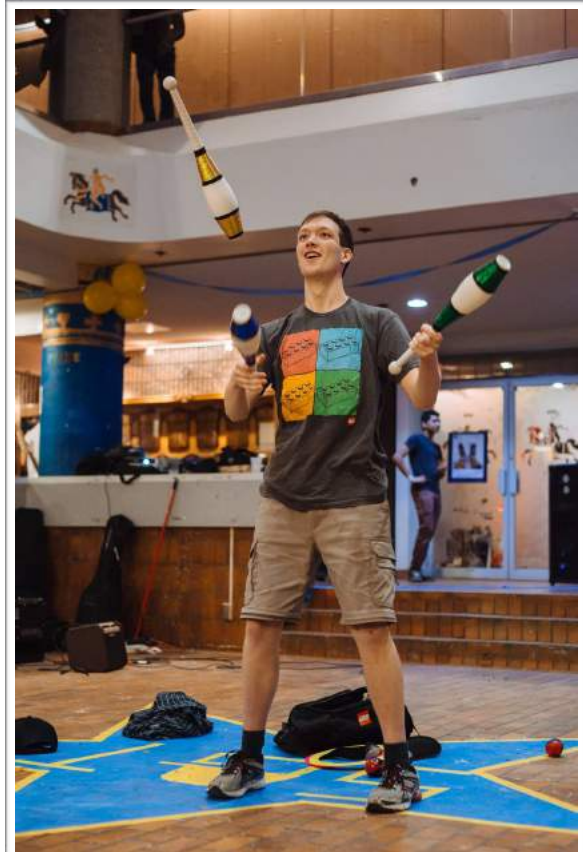
Skule's Got Talent Executive Members (from left to right: Fan Guo (ECE1T7), Sneha Adhikari (CIV 1T8), Shivani Nathoo (ENGSCI 1T8), Betty Liu (ENGSCI 1T9), Helen Song (MECH1T6), Beverly Shen (ECE1T7))



Diego Domingo (CIV1T9) on the accordion



Indigenous Foreigners (Members from left to right: James Shen (ECE1T6), Bill Xing (ECE 1T5), Ruian Shi (CompSci 1T7), Jenn U (MECH1T6))



Calvin Rieder (MECH 1T9) juggling



# Spark Design Club



**Total Amount of Funding Awarded: \$4,850**

## Overview:

This year, the Spark Design Club received a total of \$4,850 from the Centralized Process for Student Initiative Funding. We were funded by the Engineering Society, the Engineering Alumni Association, the Department of Electrical and Computer Engineering, The Department of Engineering Science, and the Department of Mechanical and Industrial Engineering. We'd like to wholeheartedly thank each of these organizations because our club couldn't exist without their generous support.

On a whole, Spark had a very successful year. As always, our main focus was building fun and interactive electromechanical displays around campus. We host workshops where any and all interested students are invited to come together to help build one of our projects. We believe that this experience of working on a large-scale project is an invaluable way for students to learn hands-on engineering skills. This year, CPSIF money funded four different displays (including a frosh week display), a SolidWorks design contest, and numerous soldering tutorials. The money also allowed us to invest in new tools that will increase the quality of our future displays. In the remainder of this document, we'll go over each of these projects in a bit more detail.

## Frosh Week Display:

Spark hosted our 5th annual frosh week event, attended by approximately 100 incoming engineering students. In keeping with the superhero theme of this year's frosh week, Spark built a pair of Avengers cutouts, which students could pose behind. The frosh participants worked together to build nearly 1000 magnetic LED components, which were used to decorate and illuminate the cutouts.

## Connect-4 Display:

In the beginning of the fall semester, Spark built a large electronic version of the game Connect-4. The game featured 42 individual LED boards, a large multiplexing network, a microcontroller, a wooden/plexiglass enclosure, and a sturdy support frame. The display was built collaboratively by over 40 students, over the course of two weekends. Students who participated learned to work with drills, mitre saws, hole saws, soldering irons, LEDs, Arduinos, multiplexers, and more. Once finished, the display was showcased in the Bahen lobby for almost two months. The display was quite popular; students loved facing off against their friends.



Spark Execs in front of the completed display. Bottom row is Sandro Young, Evelyn Sham, Janice Zhou, and Jason Wong. Top row is Alessandro Sciarra and Gabrielle Sebaltd.



The Spark Exec team in front of the display. Bottom row is Shanmeng Sun, Helen Meng, Janice Zhou, Wenyi Yin, and Sandro Young. Top row is Chokpisit Kasemphaibulsuk, Alessandro Sciarra, and Jason Wong.



### Discipline DDR Display:

Spark's second display was a cross between Dance Dance Revolution and whack-a-mole. The display featured a 3x3 dance pad, with light-up tiles. The tiles would flash randomly, and players would attempt to step on the illuminated tiles as quickly as possible. On each tile, we painted a symbol representing a different engineering discipline. Over 25 students helped complete the project. The finished display was showcased in the Bahen lobby, and in the lobby of the TEDxUofT conference centre. The game was played nearly 1500 times!



The game on display in the TEDxUofT lobby

### SolidWorks Design Contest:

In February, Spark held their 4th annual SolidWorks Design Contest. This year's challenge was to design a piece of compact, multipurpose furniture, suitable for small student apartments. Participants brainstormed creative solutions and then modeled them in SolidWorks. Participants then had to present and defend their designs in front of a panel of judges. The presentations took place on February 12, 2017, and there were two alumni on our judging panel: Gabrielle Sebaldt, and Artem Radzikhovskyy.



Group photo of all the competition finalists: Daniel McInnis, Jessie Hu, Namali Walisundara, Chevis Dilbert, Kyle McFarlane, Nicholas Park, (Roy) Seung-Hoon Lee, and Kyle Kim. To the right, Spark Execs Sandro Young and Jason Wong

### Steady State Display:

Spark's final display of the year was the Steady State display. This two-player game tested coordination and agility. Players were required to move metal wands through a curved track, without touching the sides of the track. The first player to reach the end of the track was declared the winner. This display was built in a single day, near the middle of the winter semester; approximately 20 students collaborated on the project.

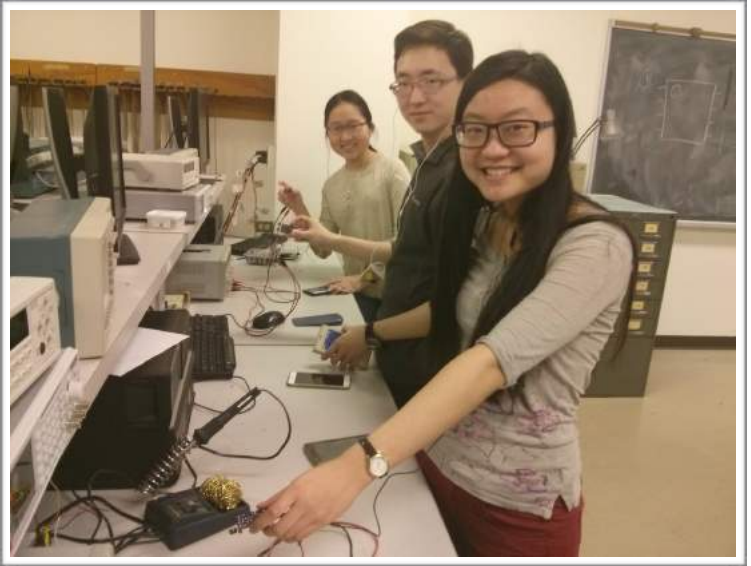
The Spark Exec team in front of the display. Top row: Jason Wong, Sandro Young, Alessandro Sciarra, and Helen Meng. Bottom row: Shanmeng Sun, Wenyi Yin, Janice Zhou, James Chen, and Chokpisit Kasemphaibulsuk





### **Soldering Tutorials:**

Throughout the year, Spark held a series of soldering tutorials. Students were paired up with executive members of the Spark team, and were given a basic introduction to soldering. By the end of the session, they had each soldered together a simple PCB toy that they could bring home. In some of the workshops, participants built an electronic die. In other workshops, they built an Elektroschluch (a device which lets you hear electromagnetic fields). This initiative was new this year, and we thought it was a very successful. We initially used CPSIF funds to prototype and develop this idea, but now that we've designed the workshop format and PCB toys, we think these events can be sustained by simply charging a small registration fee to each participant to cover the cost of components.



**Students experimenting with their newly-built Elektroschluch devices.**

### **Tools:**

CPSIF funds were also used to purchase better tools, which would improve the quality of all our future displays. This year, we invested primarily in electrical tools: better soldering irons, more wire stripper and wire cutters, and a new power supply (to replace our old model which broke).

### **Conclusion:**

We've had a fantastic year at Spark. We hope that our displays have provided entertainment and inspiration to the Skule community, and that our workshops, tutorials, and design competitions have provided the opportunity for students to practice hands-on engineering skills. We want to express our gratitude to all of the organizations that supported us through CPSIF: the Engineering Society, the Engineering Alumni Association, the Department of Electrical and Computer Engineering, The Department of Engineering Science, and the Department of Mechanical and Industrial Engineering. Without their support, none of our events would be possible. Thank you!



# Students Fighting Cancer (SFC)



## Total Amount of Funding Awarded: \$650

Students Fighting Cancer (SFC) was awarded \$650 for the 2016-17 school year. The funding was used to host a professional talk during World Cancer Day on the topic of growing areas of cancer research and technology. The presentation was given by a neurosurgeon, and it allowed participants to deepen their understanding of challenges in finding a cure to cancer while gaining an appreciation of why a solution requires involvement from multiple stakeholders.



Funding granted by CPSIF was also used to host a stem cell drive in support of a Canadian veteran with leukemia. The event took place at the Bahen lobby and aimed to help this cancer patient find a suitable match. The event was run with help from multiple volunteers.

The funding received by SFC came from the Engineering Alumni, the Engineering Society, and the Institute of Materials and Biomedical Engineering. The funding helped SFC host events to keep raising awareness about the challenges and barriers in the fight against cancer. It helped SFC provide students affected in any way by this disease with avenues to bond and find support within their communities. Thank you so much for supporting us!



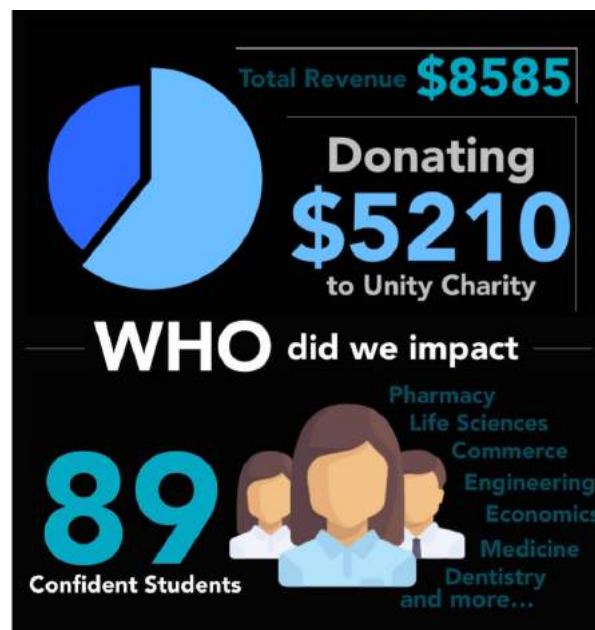
## Suits U



### Total Amount of Funding Awarded: \$1,800

Our mission at Suits U is to break the stereotype of the sloppily-dressed engineering student. We do this by providing engineers, and other students, with professional business attire at budget-friendly prices. Our clothes are hand-picked from our collection of donations from retailers and industry professionals. We hold events where we showcase our inventory to students, teach them how to make a great first impression, and help them find the perfect business outfit. The students purchase our clothing at highly discounted prices, knowing that all proceeds from the sale are donated to local charities that empower at-risk youth in Toronto. We believe that with our ability to provide exclusive attire at inclusive prices, we can give students an equal and fair opportunity at a first impression and pave the way for the next generation of leaders.

This year however, we also wanted to show that our organization is more than just a suit seller. We wanted to showcase our collective knowledge of how to make a good professional impression and we believe that we can provide the entire package of a professional image to students by providing them with not only the attire, but also the knowhow.



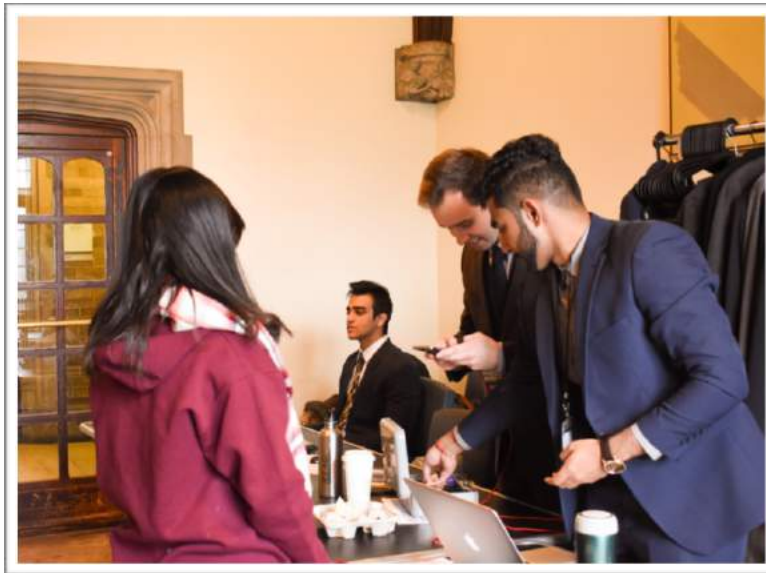
We were very grateful to receive a total of \$1800 dollars from the Faculty of Applied Science & Engineering. In particular, we would like to thank the Engineering Society who contributed \$1100, You're Next Career Network who contributed \$500, and the Department of Engineering Science who contributed \$200. This funding was instrumental to helping Suits U expand our operations and we owe a big part of our success to your support. This year we wanted to redefine ourselves as a professional development club and that involved incurring several one-time marketing costs. In particular, we spent money on reusable general purpose banners as opposed to posters. The posters we had used previously were expensive, ineffective and disposable. They would be taped over or removed. With the purchase of banners, we found that we were able to increase our outreach and garner more interest. This was found to be true when advertising our events in the Bahen Centre and during the club's fair. In addition, we believe our costs will be much lower over the long term. These banners are a onetime expense and our overall marketing costs will be significantly lower in the future years. Our sales are only as impactful as the number of people that attend and we strongly believed that the better visuals helped attract more interested students to our events.

The most important area that the Faculty's funding was able to support this year was a second suit sale event. In all our previous years of operation, Suits U was able to only have one sale every year due to our limited budget. For the first time, we were able to hold a second suit sale at Hart House, which we advertised as an end of year clearance sale. The cost of renting the room and the equipment needed for a sale represents the most significant expenses of Suits U every year and we were extremely fortunate to have received enough funding to



make another event possible. Many excited engineering students, as well as students from all over U of T came to the event and dozens were able to find professional apparel for themselves. We are extremely proud of the students we impact and the funding that the Faculty provided helped us reach new heights this year.

Finally, we finished of the 2016-2017 school year with a brand new event that cemented Suits U as one of the top clubs on campus for professional development by hosting a development event in partnership with McKinsey and Co. This was made possible through engagement with a Faculty of Applied Science & Engineering alumni, and founder of Suits U, Brandon Li. On March 24th, 2017 at McKinsey's Toronto office we held our first professional development event in which two McKinsey consultants, Brandon included, gave a lively workshop on how to network. Our event was an overwhelming success as we reached our maximum capacity of 50 people and based on the feedback, many students felt they took away valuable insights. This event would not have been possible without the help of our Engineering Alumnus and we look forward to creating more value for students in collaboration with other alumni of the faculty.



Dress to Impress Suit Sale



Suits U + McKinsey Professional Development Event



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# Sustainable Engineers Association (SEA)

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## Total Amount of Funding Awarded: \$7,000

### About SEA:

Fueled by the drive to increase interest and awareness about Sustainability, the Sustainable Engineers Association has grown to be one of the foremost sustainability-oriented clubs at the University of Toronto since its establishment in 2009. SEA acts as a platform to connect students from all disciplines to the fields of sustainability, both on an academic and on an industry-wide level. SEA's mission is to empower students and professionals with knowledge, interest, passion, and ultimately experience within the domain of sustainable development. To that end, we host some of the most diverse events about Sustainability on campus to engage students from all disciplines and get them involved in the sustainability conversation.

### CPSIF Funding Awarded:

In the 2016-17 Academic year, the Sustainable Engineers Association received \$7000 from the CPSIF fund. During the past year, SEA has hosted sustainability-related events for more than 500 UofT students & alumni. Our events would not have been possible without the CPSIF funds we received, and for that we are very thankful.

### Events Hosted with CPSIF Funding:

Please find below a summary of some of the events hosted by SEA over the past year. CPSIF funding was used for these events in various ways, including paying for venue booking, catering at the events, arranging transportation for students, and for Audio/Visual charges.

**UofT Sustainability Conference:** Jan 28th, 2017, 220 delegates and 20+ speakers : Under the theme "From Policy to Practice". The 2017 UofT Sustainability Conference showcased how various sustainable projects, ventures, and policies are currently being applied within industry practices. The conference brought together individuals and groups from a variety of backgrounds including university, government, corporations, etc., in order to discuss sustainability within a broad range of sectors. The conference website can be found here: <http://conference.sustainable-engineers.org>

**Sustainability Career Discovery Session:** November 25th, 2016, ~60 students: The Career Discovery Day. This event brought together General Motors (a company), Masters of Science in Sustainability Management Program at UofT (an academic group), and LEAF (an NGO) to speak about the different career paths that students can explore in Sustainability and urge students to consider careers within the growing field.

**Student Competitions: MUN style Environmental & Sustainability Summit:** November 12th, 2016, Registration: 40 students. The University of Toronto Environmental and Sustainability Summit 2016 was a debating conference. Modelled after the G-8 Summit, which discussed important issues related to sustainability and challenged participants to come up with a constructive and comprehensive policy to resolve or mitigate those issues.



**Celestica Industry Tours: March 10th, 2017, 10 students:** Our industry tours are small scale events (due to space limitations at the factories we visit) that expose students to the sustainable policies and practices currently being used within industry. Our Celestica Industry Tour included a visit to their Fabrication facility, where students witnessed the various sustainable manufacturing and waste management systems that they have in place.

**SEA x Deloitte: Blockchain & Sustainability Talk,** March 13th, 2017, 42 registrations: 2 Consultants from Deloitte discussed the impact of Blockchain on sustainable engineering. Blockchain, made famous by bitcoin, is a distributed ledger shared on the Internet and has many applications across industries. The seminar talked about the fundamentals and challenges of Blockchain, and its implications to various industries and sustainability. The event conveyed how this new piece of technology can be utilized within the Sustainability Realm!

**SEA x Microsoft Competition: Machine Learning Sustainability Competition:** March 11th, 2017, 35 participants: This event included teams presenting their results using Microsoft Azure to a panel of judges from Microsoft and the University of Toronto. Registered teams were given 10 days to prepare for the case and had the chance to learn about the software during a workshop organized prior to the competition. The goal of the competition was to engage students interested in Machine learning & Big Data Analytics to use these technologies towards solving a significant sustainability related issue.

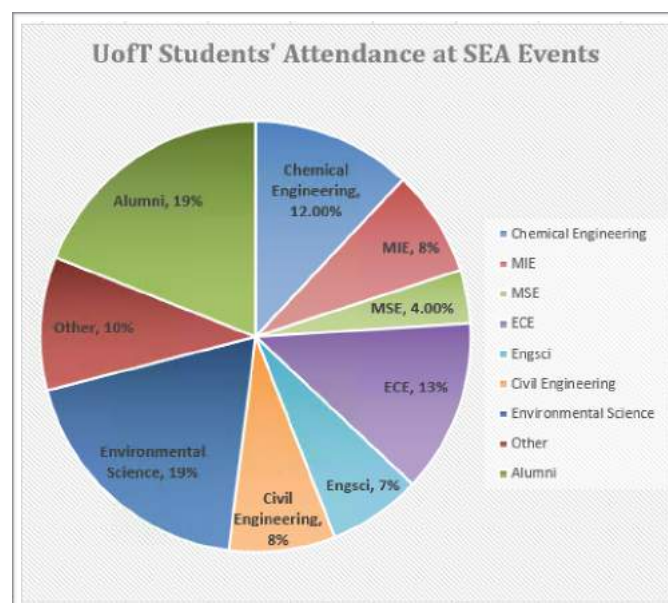
**Curriculum Enrichment:** Throughout the year, our SEA curriculum enrichment team has been working with different Engineering and Arts & Science Programs to incorporate Sustainability projects & seminars in courses. These contributions have included acting as clients for first year sustainability-related design projects, to organize course seminars and meeting with professors to modify course contents to include more sustainability elements.

### SEA's Impact:

The funding we have received from CPSIF has enabled us to successfully run our own events and initiatives in an effort to incorporate sustainability into students' mindset and build the next generation of sustainable professionals. Our events share the common goal of exposing students to the latest breakthroughs in sustainability and how sustainable solutions can be realistically implemented given the restrictions of policies and businesses. By showing students that sustainability is important in all aspects of modern life, SEA aims to build a more sustainable SKULE community, and extend this to the wider community once students graduate and start their careers.

### From the SEA Team: Thank you!

SEA started as a small club in the 2009-2010 academic year with the goal of increasing awareness about sustainability on campus. Over the past 7 years, our club has grown to over 35 executives, all sharing a passion towards sustainability and its advancement. Over the past year, our executives have hosted many events and initiatives. None of our events would have been possible without the help and support of our funders and sponsors. The CPSIF was an essential component in our success over the past year, providing the financial backing needed by our club to further grow, develop and help ensure that UofT students will become sustainably minded professionals in the future!





### Alumni Engagement:

SEA retains a list of UofT Alumni through our monthly newsletter, which we invite to our various events. We typically have about 20% of our event attendees be UofT Alumni. This is especially the case for our yearly conference, “The UofT Sustainability Conference”. In the 2017 conference, we hosted around 40 Alumni out of our 220 conference Delegates.

In addition, over the past year, SEA has been trying to get more alumni engagement by inviting them to be guest speakers at our events. To that end, we invited Mehran Hydary, a Deloitte consultant, and UofT Electrical Engineering Alumnus, to speak at our “Blockchain & Sustainability” seminar on March 13th, 2017.



SEA's September 2016 Kickoff Meeting



Finalists & Judges @ the SEA x Microsoft Sustainability Machine Learning Competition



Thanks to CPSIF Funding, The conference was held at the Allstream Centre this year!



Panel Session at the UofT Sustainability Summit MUN Competition



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# Tales of Harmonia



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## Total Amount of Funding Awarded: \$400

Tales of Harmonia (ToH) is a mixed 30-voice, student-run, auditioned choir that aims to provide talented musicians on campus with a multifaceted musical environment, so that they may be able to deliver a multidimensional artistic experience. Our vision is to provide an eclectic experience by celebrating music in all its beauty, glory, and majesty among students. We believe that music has the power to pervade all aspects of life – artistic, cultural, social, societal, technical/technological, etc. In 2016, we were awarded with \$400 in funding from the CPSIF.

We at Tales of Harmonia would like to thank the Engineering Alumni Association and the Engineering Society for their generous contribution to our choir. With the funding we received from the Faculty of Applied Science & Engineering, we were able to host two concerts this year, showcasing the talents and dedication of the 36 members of our choir. In December, we hosted our winter concert, Mixtape on Fire, and our audience completely filled the Hart House Music Room. We sang songs from various movies/television shows including Pokemon, Skyrim, Steven Universe, James Bond and Michael Jackson.

This past April we decided to do an original musical, featuring a student-script, with a complete 18-piece orchestra of student-arrangements and in our largest and most expensive venue yet. "In Spite of Silence" spins a tale of a world where singing is magical but forbidden, and through oppression the people will rise. For this massive undertaking, our interactions reached far beyond the choral community. We invited students from across the University to partake in our orchestra, choreograph dance pieces and manage the stage.

We keep our concerts solely donation-based to attend so that they remain accessible to the student community. The funds we received allowed us to acquire the venue and sound equipment that we needed. Specifically, we used the funding to rent 6 wireless headset microphones, multiple condenser microphones, two speakers, a drum set and an electronic mixer from Long and McQuade. We could not have done this without the support from the CPSIF.

We cannot stress enough how integral these concerts are to the development of skills in our choir members. Our singers attend at least three hours of rehearsal each week in order to prepare for upcoming concerts, while simultaneously developing time management skills and a strong sense of community. Our rehearsals are hard work, but they are also welcoming, fun and a great change of pace after a long day of studies. Many of our members are actually quite shy and our concerts give them an opportunity to step out of their comfort zones and practice performing in front of a crowd. In addition to the performances with the full choir, our concerts also have spaces for smaller acts. We strongly encourage our members to come up with their own acts to perform, and the hard-work and creativity that goes into these acts is stunning. Some of our singers have graduated university, and came back to sing with us as alumni. Many of our audience members are also alumni, and continue to enjoy the music we put forth. The skills that we develop in our choir members and the community we foster, create a long-lasting impact to the Faculty of Applied Science & Engineering.





Members of Tales of Harmonia gathering to take a selfie after our winter concert Mixtape on Fire on Dec. 7th 2016.



Group Photo Following our Spring musical "In Spite of Silence" on Apr 2nd 2017



# TechXplore UofT



## Total Amount of Funding Awarded: \$806

### Introduction:

TechXplore UofT is a student club under the University of Toronto, founded with the aim of providing technical skills to students with a non-technical background. Completing its second year of operation, TechXplore is very thankful for receiving funding from CPSIF. For the past year, TechXplore has arranged 7 individual workshops, 2 collaborative workshops with one nationwide hackathon and provided students a platform to broaden their technical aspects on multiple platforms. A summary of how the funding was used has been presented below.

### 1.0 Funding Summary:

Funding received from multiple departments are mentioned as the following:

Mechanical and Industrial Engineering:	\$100	Engineering Alumni Society:	\$300
Engineering Science:	\$100	Engineering Society:	\$46.37
Electrical and Computer Engineering:	\$260		

### 2.0 Workshops:

Most of the allocated student funding was utilized under the workshops arranged. A detailed picture of the workshops are shown below:

#### 2.1 Excel Fundamentals:

This workshop focused on basic Excel skills required for introductory and advanced calculations. It led to creating macro and basic analysis of a business model. The workshop was led by one of the current students from Mineral Engineering who also performed the role of secretary for the past year.

*Facilitator: Conrad Hopp*

*Department: Mineral Engineering (current student)*

*Number of People: 30*

*Expenses: \$35*



#### 2.2 Java Workshop:

The workshop focused on introductory programming skills in Java. The facilitator of the workshop was an Alumni from the department of Electrical Engineering. The workshop was designed for students with no programming skills. Out of 28 attending students, 25 were from the faculty of Arts and Science along with 5 volunteers from different disciplines of Engineering.

*Facilitator: Grace Guo*

*Department: Electrical Engineering (Alumni)*

*Number of People: 33*

*Expenses: \$30*





### 2.3 3D CAD Modelling:

This workshop was led by one of the current students from Mechanical Engineering. Out of a total number of 40 people, 35 students were from the faculty of Arts and Science. This workshop allowed students to gather introductory knowledge on 3D Modelling with a final project. It was a continued workshop where students were promised to be given a 3D printed version of their model. It spiked a lot of interest among the students and the numbers were higher.

*Facilitator: Han Wu*

*Department: Mechanical Engineering*

*Number of People: 40*

*Expenses: \$50*



### 2.4 3D Printing Workshop:

A continued workshop from the previous workshop of 3D modelling. Students were allowed to work on the small project and then were taught how to 3D print.

*Facilitator: Han Wu*

*Department: Mechanical Engineering*

*Number of People: 40*

*Expenses: \$50*



### 2.5 Workshop on R Language (Collaborative):

TechXplore decide to collaborate with the department of Human Biology (HMB) from UofT along with Data Science Club. A total of 110 people including 10 volunteers attended this workshop. It focused on basic programming skills in R and how it affected real life calculations. The workshop was led by one of the Alumni from HMB who is currently working as a research assistant at Sick Kids Hospital. The attendees were provided with CCR which spiked interest among the attending students.

*Facilitator: Fiorella Wever (Alumni)*

*Department: Human Biology*

*Number of People: 110*

*Expenses: \$110*

### 2.6 HTML Workshop:

This workshop was held by one of the ex-attendees of TechXplore. The main focus of the workshop was introductory web development skills.

*Facilitator: Robert Fairley*

*Department: Electrical Engineering*

*Number of People: 40*

*Expenses: \$50*





### 2.7 Python Workshop-Beginner (Collaborative):

This was a two day workshop held on the basic Python skills through the collaboration with the department of Pharmacology and Toxicology. It was led by one of the alumni from the department of Pharmacology and Toxicology. The focus of the workshop was developing Python skills among the students from the department.

*Facilitator: Richard Song (Alumni)*

*Department: Pharmacology and Toxicology*

*Number of People: 135*

*Expenses: \$227*

### 2.8 Python Workshop-Advanced (Collaborative):

Advanced skills on Python continued from the first workshop

*Facilitator: Richard Song (Alumni)*

*Department: Pharmacology and Toxicology*

*Number of People: 135*

*Expenses: \$227*

### 2.9 MATLAB Workshop:

*Facilitator: Yao Hong Kok (Alumni)*

*MASc From UofT*

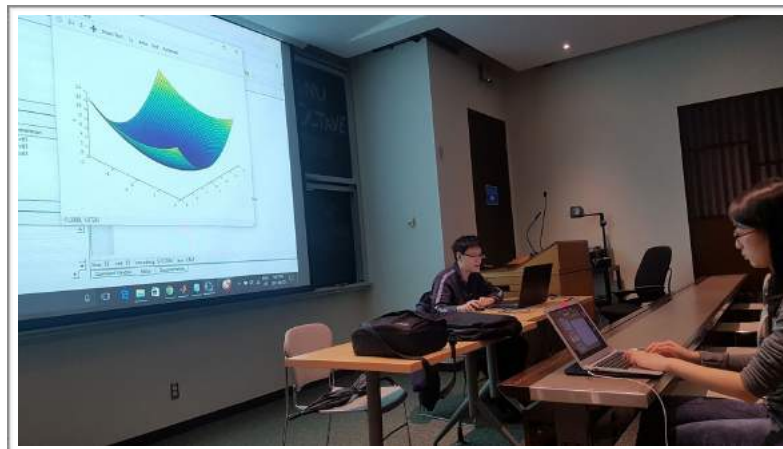
*Expenses: \$50*

### Summary:

*Total Expense: \$829*

*Total Funding Received: \$806.37*

TechXplore had the glorious opportunity to arrange a nationwide Hackathon, DeepHealth, with a Startup, Medchart, and General Electronics. We received an overall funding of \$5000 to arrange the hackathon, which covered all the expenses related to the hackathon and left us with some extra amount to spend on the workshops.





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# BioEngineering Student Association (BEST)

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## Total Amount of Funding Awarded: \$1,650

The bioengineering student association (BEST) received \$1650 in funding from CPSIF. The primary mission of the BioEngineering Student (BEST) Association is to inspire interest in bioengineering by providing opportunities for undergraduate students to learn more about bioengineering. Before the formation of the club, undergraduate students typically had minimal exposure to the field's dynamic potential and limited resources to learn more.

CPSIF funding was used to purchase food for events, gifts for judges at our case competition, and gifts for the professors, alumni, and industry professionals who spoke at our events. Specifically, CPSIF funding was key in allowing us to host workshops, showcase possible career paths via talks led by experts, connect undergraduate students to graduate students, and give students practical experience during our case competition. Our club's work bringing together students from all disciplines not only created a community of students at skule who were passionate about bioengineering, but also helped students network with industry and research leaders while increasing their knowledge in bioengineering. This is demonstrated in our case competition where students formed multidisciplinary teams to apply their engineering skills to the problem of gait training in developing countries. In our alumni night, several students who attended were able to get an interview with a company for a summer internship, and in our mentorship program where we had 21 pairings of students.

Our club engaged two alumni as speakers for our alumni night (January 26, 2017). The names of the alumni were: Marjia Cotic and Mirna Guirgis. Unfortunately, Marjia Cotic was unexpectedly not able to attend. However, Dr. Guirgis spoke for 45 minutes about her work at Avertus as well as her experiences in undergraduate and graduate studies.

Without CPSIF funding, our club would not be able to operate at all and might even cease to exist. We received funding from EngSoc, IBBME, YNCN, the Engineering Alumni Association, and from the following departments: MIE, ECE, EngSci, MSE, CHEM.

CPSIF funding is essential to our club and allows our club to potentially make an impact not only on Skule, but hopefully, in the industry of bioengineering. We hope to continue to inspire undergraduate interest in this dynamic field in the coming years.





Students speaking to Dr. Guirgis after the BEST alumni night



Undergraduate Student Team Alyssa Carolyn, Alicia Chen, Sienna Gagner presenting their design for the BEST case competition



Student teams working on the gait training problem for the BEST case competition



# Canadian Association of Food Engineers (CAFE)



## Total Amount of Funding Awarded: \$850

We used the \$850 of CPSIF funding awarded to the Canadian Association of Food Engineers to run exciting professional development events throughout this past year that included a networking session, a coffee tasting event, a trip to a food start-up company and a food design competition.

We used CPSIF funding to purchase food and drinks for our kickoff networking session. This event featured a presentation from last year's winner of our club's food design competition (now an alumnus), who talked to current students about her experience at the competition, shared advice and commented on the impact of the competition on her career opportunities after graduation.

We also used CPSIF funding to purchase supplies for our very first coffee tasting event. We took Skule students to a local espresso bar, where the owner shared with attendees the history of his company, his professional journey, and his rich knowledge of crafted Italian coffees. Students had the chance to try out exquisite varieties of coffee, and the generous funding contribution from CPSIF enabled us to offer this event completely free of charge.

Lastly, we used CPSIF funding to purchase food, drinks and gifts for the series of events from our annual food design competition. For this event, we challenged student teams to come up with an innovative design to address a current issue in the food industry, and we provided them with mentorship from industry professionals so they could incorporate feedback on their designs prior to a final competition day.

CPSIF funding led CAFE to exceed its goal of boosting the quantity, variety and attendance of its events. We hosted two brand new events this year and the feedback from the attendees was very positive. These improvements would not have been possible without the support from the Engineering Society, Skule Alumni and MIE Department, who provided funding to support our activities this year. This support encourages CAFE to work even harder on its mission to connect U of T students with professional development opportunities in the food industry.









# The Operations Research Challenge (TORCH)



## Total Amount of Funding Awarded: \$3,000

The Operations Research Challenge (TORCH) is an annual one-day free event for grade 9 to 12 students. Our goal is to introduce high school students to operations research and develop their interests in this field of Industrial Engineering. The integration of techniques from engineering, computer science, and mathematics to solve complex decision-making problems has made this field even more relevant in today's data driven society. During the competition, teams of three or four students worked together in a classroom to solve OR-related questions with the use of blackboards to aid discussions was encouraged.

TORCH aims to encourage a wide range of high school students to consider studying OR at the university level. As such, the event is completely free of charge with food provided. It is through your generous support that we are able to continue our mission. This year, we had 125 registrants of which 22% were female and 76% were male. In addition to the student panel, we also hosted a tutorial on Network Problem Optimization. We also placed a large emphasis on innovation in the questions and medium in the competition. We specifically developed an interactive "Part 2" to this competition through a web interface. In this Part 2 section, teams directly competed with each other in a turn based game-theory optimization problem.



TORCH 2017 Welcoming Presentation

This year, we had a very high feedback rate and the comments have been very positive. Many students found the questions to be intellectually challenging and reflective of real-world applications (e.g. optimal allocation of solar energy, strategic procurement for retail stores, etc.). The free food, drinks and the exam rooms in Bahen were all mentioned as highlights of the experience. A few pictures are included at the end.

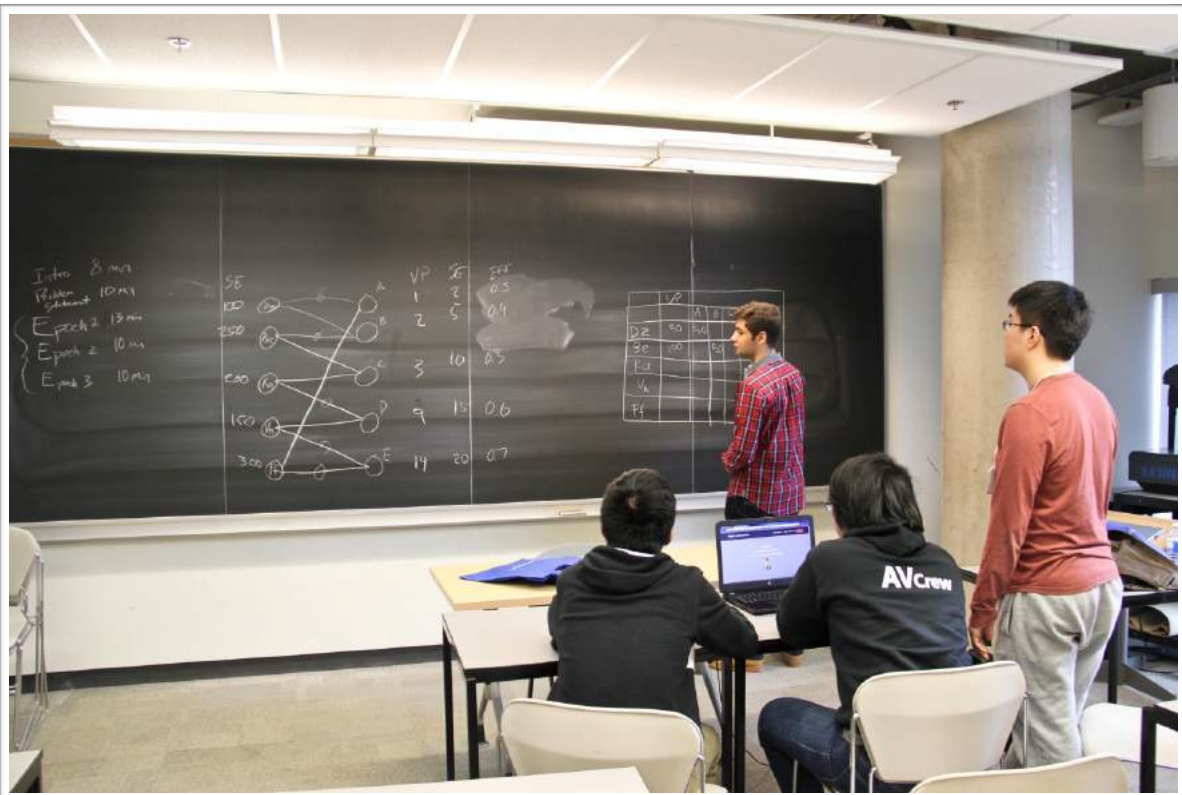
The \$2,500 received from the MIE department and the \$500 received from the Engineering Alumni Association allowed us to organize a professional and high quality event. Your support allowed us to maintain an award structure for the top 5 teams and cover some of the lunch expenses. Your contributions helped us continue with our branding initiative with competition, name tags, pens and t-shirts. The t-shirts helped identify our volunteers and organize the team in a public building while the branded pens were a takeaway and reminder of the event for participants. Furthermore, the contribution helped support the growth of the competition, as we had approximately a 25% increase in participants this year. Participating students came from across the GTA including students from the Toronto, Toronto Catholic, Durham, Halton, York Region, York Catholic, Peel, and Dufferin Peel Catholic District School Boards.

Without your support, we would not have been able to expose as many students to OR, a lesser known field in industrial engineering.





Students Working on Part 1 of the Competition



Students Working on Part 2 of the Competition



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# Undergraduate Chemical Engineering Student Council (Chem Club)

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## Total Amount of Funding Awarded: \$6,000

The Undergraduate Chemical Engineering Student Council (known more affectionately by students, faculty and staff alike as the “Chem Club”) is very grateful for the continued support of the Centralized Process for Student Initiative Funding (CPSIF) Committee. This past year, funding in the amount of \$6000 has gone a long way in bolstering our endeavours to foster community growth among undergraduate chemical engineers at the University of Toronto.

Funding from CPSIF was used, specifically, to help subsidize the costs of the Annual Ski Trip to Blue Mountain for our student community. It was also used to help fund our Fall & Winter Book Smokers, our foosball and ping pong tournaments, our documentary viewings run in conjunction with the Department of Chemical Engineering & Applied Chemistry — and our Annual Talent Show. Additionally, funding was used to help upkeep and improve the condition of our common room.

The Chem Club strives to improve the undergraduate experience for chemical engineering students at U of T. Funding from CPSIF enabled us to engage students outside of the classroom, and thereby created invaluable opportunities for students to be fully immersed in school spirit within a school culture that prioritizes community growth.



Chemistry Career Day



# The University of Toronto Concrete Canoe Team



## Total Amount of Funding Awarded: \$3,700

The University of Toronto Concrete Canoe Team received \$3700 in total through the Centralized Process for Student Initiative Funding (CPSIF) program. This was broken down in the following way: \$2000 from the Engineering Alumni Association, \$1000 from the Department of Civil Engineering, \$500 from the Department of Materials Science and Engineering, and \$200 from the Department of Mechanical and Industrial Engineering.

Your generous support enabled our team to produce a canoe for this year, Kamaji, named after a character in the Japanese animated film Spirited Away. CPSIF funds allowed the team to purchase materials such as polystyrene for the canoe mould and other aggregates used in our concrete mixes, plus equipment such as a new vacuum cleaner and respirators to ensure safe construction practices throughout the year. Additionally, we utilized CPSIF funds for mould milling by an external contractor and personal training time for the competitive paddling team.



CPSIF funds helped the team, consisting of approximately 35 undergraduate students spanning in almost every engineering discipline, to develop and enhance professional skills through a practical design project. Technical concepts, such as structural analysis, and hands-on tasks like the usage of various types of saws bought with past funding, were taught to less experienced students through the design of the canoe. This allows students to apply knowledge learned from their engineering courses and helped promote interdisciplinary collaboration.

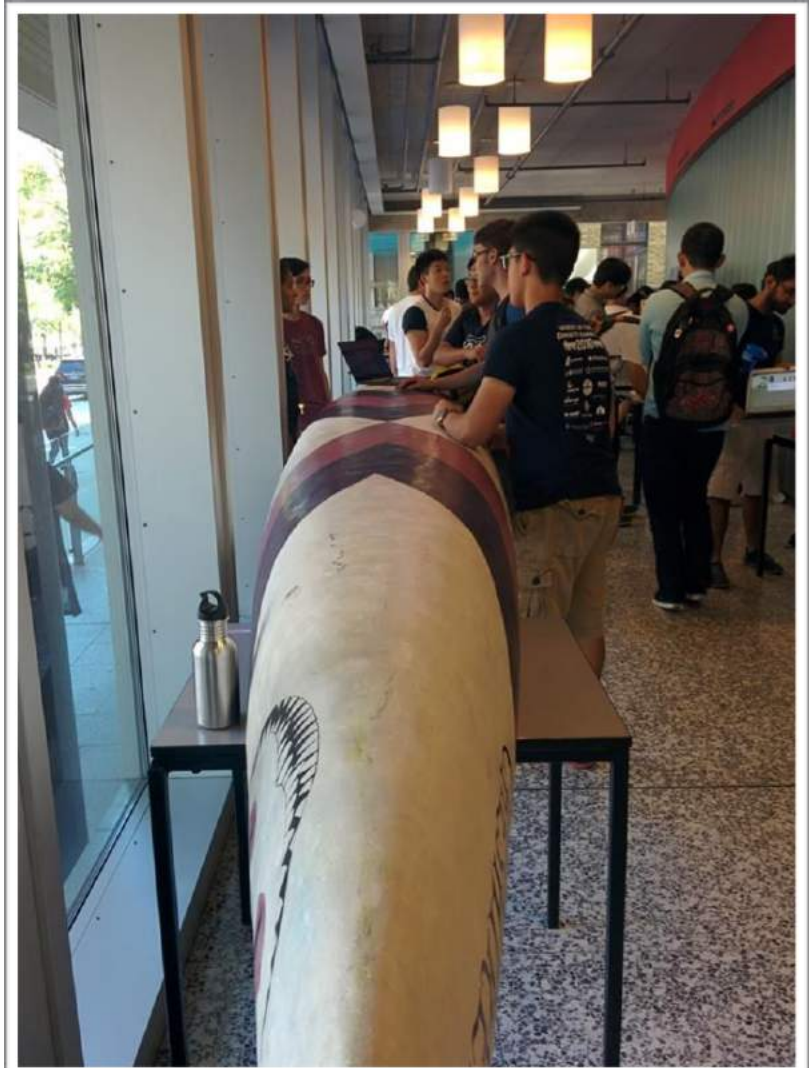
Funds were also used to facilitate activities for the greater Skule community. The team took initiatives in hosting a canoe racing event during Frosh Week, enabling first year students to bond with each other through the team-building exercise. A movie night open to the Skule community also allowed team members and non-members to learn more about the selected theme for the year.

The team engaged alumni who were involved with the team in previous years, in order to get their feedback on suggested ideas. Two alumni, both past project managers for the team, provided help more extensively: Evan Ma provided technical consultation during the design phase of the project (September to December), and Sitara Chiu participated in construction activities, especially on Casting Day held on March 5. The team is grateful for the generous support given by the CPSIF parties, and we look forward to representing Skule at this year's competition, as well as showcasing Kamaji at Skule events and on our display stand in the Sandford Fleming building.



Engineering Clubs Fair  
featuring Cheshire's Grin ,  
the team's 2013 canoe.

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Concrete Canoe team  
members placing concrete  
onto the canoe mould  
during casting day.

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# Toronto Students Advancing Aerospace (TSAA)



## Total Amount of Funding Awarded: \$900

Toronto Students Advancing Aerospace (TSAA) received \$900 of funding from CPSIF. This funding was not used immediately because it was approved after all purchases were made. By the time we were told our funding amount, we had already gone through all our financial expenses. Our expenses for this past year went towards our flagship conference. Our funding arrived after the conference, so it is planned that the funding received would go towards the upcoming conference this Fall 2017.

The approved \$900 from this year was a collective amount from the Department of Mechanical & Industrial Engineering, the Division of Engineering Science, the Engineering Alumni Association, and the Engineering Society. The Engineering Alumni Association was the biggest contributor and we are extremely thankful for their support.

As mentioned above, the funding will be used for our next conference. It will provide us with additional resources to advertise for the conference such as refreshments during information sessions, pamphlets, and posters. In addition, funding will be used to acquire promotional merchandise such as t-shirts, stickers, and other merchandise. This funding will allow us to promote STEM education, specifically aerospace engineering to students in Toronto. The aerospace engineering industry is a very multidisciplinary field that is growing with many applications, so we believe our initiatives will have a continuing impact on a wide range of students.



Many alumni were present at the conference as speakers for the presentation portion of the conference. In addition, alumni were also present at our Wine and Cheese networking event on the first day of the conference. There were several current students as well as alumni that attended our event. Most notably, Dr. Aaron Persad, who is a U of T Engineering Alumni and now a Post-Doctoral Fellow at the Sinton Lab. He was also on the shortlist for becoming the Canadian Space Agency's next astronaut. Dr. Persad was one of TSAA's keynote speakers at our most recent conference.

Our operations this past year overall led to an increase in interest in the field of aerospace. Many of the attendees were interested in the field but did not know how to get involved, and this conference helped them find different ways they could make an impact. This type of influence is what TSAA tries to expand, and we would like to thank all the departments and associations that helped support our initiatives via the CPSIF funds.



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# Troitsky Bridge Building Club

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## Total Amount of Funding Awarded: \$950

In November 2016, Troitsky Bridge Building Club was fortunately funded with \$950 from the following departments and organizations throughout the Faculty of Applied Science & Engineering:

Department of Civil & Mineral Engineering:	\$250
Engineering Alumni Association:	\$500
Engineering Society:	\$200

The funding from these organizations helped our organization a lot in achieving our goals and spreading the reputation of University of Toronto and Skule on a national level. The funding was used for both buying the materials to realize the bridge, and getting our team to successfully participate in the reputable annual Troitsky Bridge Building Competition at Concordia University. In fact, we are the first official club within University of Toronto dedicated to participating in this competition, which will guarantee future opportunities for the promotion of the Skule community and U of T.

Specifically, the funding helped us in two ways. First, we were able to acquire materials and tools, such as popsicle sticks, glue, dental floss and saws, that helped us realize an intricate arch bridge. In fact, it was so well made that the competition judges said that we built the most bridge-like bridge out of all the teams.

Secondly, some of the funding went into reducing costs for registration and travel expenses for competing members. This was important since it encouraged more members of the vibrant Skule community to go to Montreal to participate in the eye-opening competition. In fact, we went from little interest to great enthusiasm from students when choosing members to send to Montreal because of the funding we received. Lastly, we were fortunately able send seven members from the club (maximum number of people in a team was six people) to the competition.

Our team, Basic Bridges, proudly represented University of Toronto, and were able to develop team-building and networking skills, that will help the students in their future careers. Although we did not perform as exceptionally as we had wished, members of the club agreed that this year has been a great test run in the competition. We have learned quite a lot to help us do better, and hopefully send more than one team each year in the many years to come.

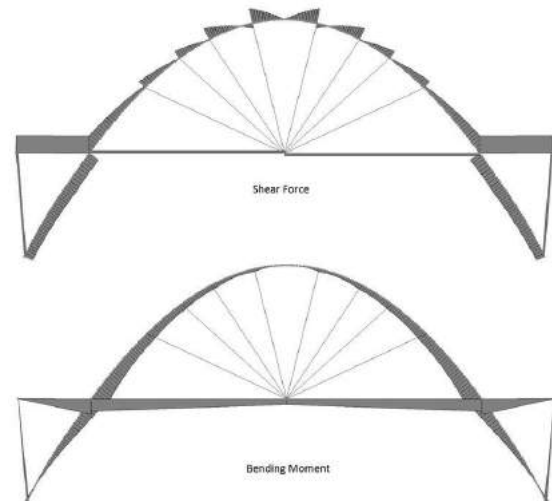
In the future, we hope to further expand our club, as this was the club's first year. We hope to include not only more civil engineering students, but also students from all over the Skule community, and alumni to experience the beauty of bridges. Now that we have tested the waters of the Troitsky competition, our club will work on improving internal structure, design/construction methods and schedules to encourage more members of the Skule community to participate without having them compromise their academic work. Lastly, we are working with our club advisor, Professor Paul Gauvreau, and possibly other graduate students, in giving extracurricular workshops about bridges and design in general, to provide the Skule community with more education about bridge design.



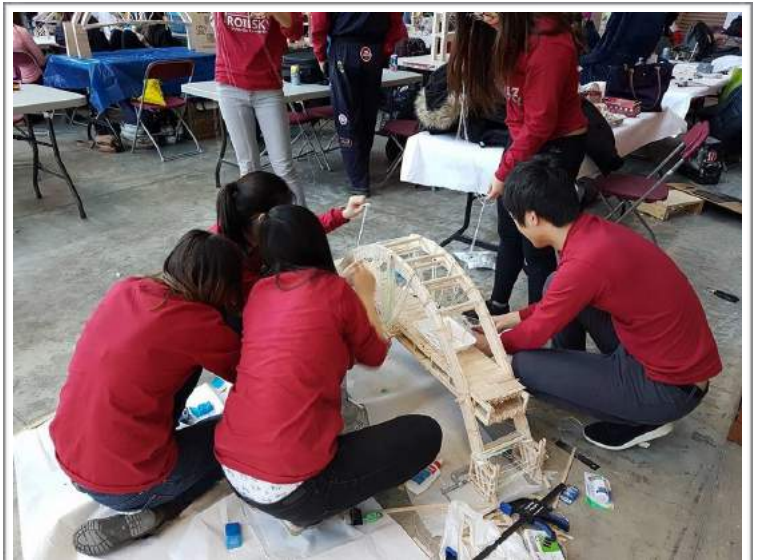
Overall, the CPSIF fund has not only helped students represent University of Toronto and Skule in the competition, but has also allowed students to further develop engineering skills that will enrich their career-related and life experiences. We hope to continue working with the Faculty of Applied Science & Engineering to provide better experiences for our school's engineering students.



Our team finishing up the bridge components that will be assembled together during the day of the competition. We have worked for about two weeks, including the entire reading week, day and night to complete the bridge on time.



Our team used SAP2000, a computer software for structural design to see which bridge type would be the strongest, and calculate the estimated shear forces and bending moments of the bridge to understand which areas required more material to resist strong forces.



Our team assembling the bridge during the four hours given the day before the bridges were tested



A group photo of the entire University of Toronto team at Concordia University, with the finished bridge.



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# University of Toronto Solar House Design Team

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## Total Amount of Funding Awarded: \$1,800

The University of Toronto Solar House Design Team is part of a larger group of faculty and students from U of T, Ryerson and Seneca, who are working to design and build a cutting edge, net-zero energy house. This project aims to create a vision for future housing in our city, showcase cutting edge research, provide education for students and increase public awareness of sustainable housing solutions.

This academic year, we embarked on our technical design and prototyping phase. Students have been working in a wide range of different areas, including traditional engineering roles such as controls, electricals, building science and solar generation, as well as a wide variety of non-traditional roles. Through our efforts we've made significant progress and are on track to start construction in summer 2018.

The work has provided an opportunity for students to get unique experience working on a complex and challenging project. The scale of the project combined with its practical nature, have provided many unique opportunities for our members. It continues to be a thoroughly interdisciplinary initiative that fosters collaboration between different types of engineers, between engineers and other disciplines and between schools.

While the contribution of \$1800 given by the CPSIF made up a small portion of our overall budget, it still helped to cover a very wide variety of costs. This included the cost of creating a scale model of the house, providing the materials and supplies for meetings and materials needed for outreach and sponsorship events such as posters, banners and flyers. All these costs were an important part of both running the team as well as raising funds. We are grateful to the Department of Mechanical & Industrial Engineering, the Department of Civil & Mineral Engineering, the Division of Engineering Science, and the Engineering Alumni Association for providing this funding.



# University of Toronto Aerospace Team (UTAT)



## Total Amount of Funding Awarded: \$9,450

Over the 2016-17 academic year, funding from the Centralized Process for Student Initiative Funding (CPSIF) enabled the University of Toronto Aerospace Team (UTAT) to grow its technical and outreach achievements to new heights. With over 100 active undergraduate and graduate students spread across 6 project divisions and 5 administrative portfolios, UTAT is Canada's largest and most award-winning aerospace design team. Thanks to this dedicated team and the support of our sponsors, UTAT looks increasingly like a student-led aerospace institute rather than "just" a student club.

For the second time in a row, UTAT's Aerial Robotics and UAV Divisions took both 1st and 2nd place in Phase 1 of the 2017 Unmanned Systems Canada Student UAS competition this year, focused on wildlife monitoring. UTAT also co-hosted the third annual Toronto Students Advancing Aerospace (TSAA) conference with Ryerson University, bringing together some 60 students over three days of talks, networking, and career development. UTAT's Rocketry Division placed 1st in Canada and 3rd internationally at the Intercollegiate Rocket Engineering Competition 2016. Our Space Systems Division placed 4th in the 2016 edition of the Canadian Satellite Design Challenge. Meanwhile, UTAT's UAV Division took 2nd place in Canada and 10th internationally at the Association for Unmanned Vehicle Systems International competition 2016. These technical accomplishments have further come with numerous conference publications in venues such as the International Astronautical Congress and the Canadian Aeronautics and Space Institute conference. UTAT was additionally selected to represent Canada alongside the Canadian Space Agency at the 2016 International Astronautical Congress, and to participate in the highly exclusive CalTech Space Challenge 2017. Evidently, the combination of strong departmental funding, strong alumni support, and passionate students resulted in internationally competitive results.



Within UTAT, the team has also made significant strides to bolster diversity and leadership development. The team includes students from all disciplines of engineering, as well as from life science, physics, commerce, and other programs at U of T. UTAT also expanded its administrative structure to cope with the rapidly expanding member base and project ambitions, introducing a Director of Marketing, Director of Business Development, and Director of Leadership Development. This new management has allowed UTAT to develop its global profile, appearing on the cover of the March 2017 edition of SAE Momentum magazine, donating a rocket engine for summer workshops at the Ontario Science Centre, and giving a talk on student-led aerospace at the 2016 Canadian Undergraduate Technology Conference. UTAT members and alumni have continued to secure internships at top employers like SpaceX, Airbus, and Tesla, as well as create nationally leading start-ups like Kepler Communications and The Sky Guys.



If there is one message present in all of UTAT's activities, it is that the team is committed to redefining limits. UTAT has taken a grassroots student-led approach to redefining drone, small satellite and sounding rocket technology. This is in addition to redefining the management structure and leadership development of student teams and redefining the role of student teams in modern engineering education. As UTAT looks to the future, we look forward to continued collaboration with the University of Toronto and the broader community in achieving our vision. That is, a world where the Canadian and global innovation infrastructure is led by an ambitious, diverse, and compassionate community of empowered young professionals.





# University of Toronto Baja Team



## Total Amount of Funding Awarded: \$20,554

The U of T Baja Team is grateful for the continuing support from the Centralized Process for Student Initiative Funding. The funding from CPSIF represents the majority of the team's income for the year, and is vital for the continuation and success of the U of T Baja Team.

This year, the team's focus was on designing and manufacturing more custom components for the car than in previous years. This allowed the team to optimize all components rather than make compromises to fit off the shelf parts. A significant portion of the funds from CPSIF were used to purchase materials and machine shop services to manufacture many components. One example is the rear suspension of the vehicle, which uses a three-link setup that, prior to this year, made use of off-the-shelf components. In an effort to simplify and lighten the design, the brakes were moved inboard (versus at the wheel), which meant we could simplify the wheel upright and save the weight of one calliper and rotor. The wheel uprights were machined by the MC-78 machine shop out of 4140 steel. The links which connect the upright to the frame of the vehicle were manufactured by team members out of 4130 steel. The funding from CPSIF allowed us to solicit the machining services of the MC-78 machine shop, as well as purchase the more expensive steel alloy.



The most impactful purchase made this year by the team was the trailer. In prior years, the team would rent a U-Haul pickup truck or box truck to bring the vehicle and tools to competitions. This proved to be limiting and expensive. Since the purchase of the trailer, the team has been able to travel with the vehicle more freely. This has allowed us to compete in three different competitions this year, the most ever. With the trailer, we were also able to plan outings not just to competitions, but to test the vehicle and drivers as well. One such outing was a trip to Ganaraska Forest, where we invited all the junior members of the team to drive the car around a course. For the executive members, this allowed us to gauge who would be best suited to drive the car at competitions. For the junior members, it was a chance to experience, first-hand, a side to engineering that they would not otherwise enjoy through their curriculum. Many new members expressed their interest in continuing the U of T Baja Team's quest to build more competitive vehicles through better engineering. The junior members of the team are excited about engineering and representing Skule and the University of Toronto on an international stage.

The funding from the CPSIF is critical to the team's existence. Without it, we would have no money to attend competitions or to build a car. The CPSIF funding allows us to engage engineering students, help them build confidence in their abilities and get them excited about engineering.



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# University of Toronto Business Association (UTBA)

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**Total Amount of Funding Awarded: \$1,475**

**Examples of How the Funding Was Used:**

We have used the funding for our speaker series and the annual conference. We have had 3 speaker series, and one conference in total. For the conference, we used the funding for the venue, food and refreshments, speaker gifts (we had more than 10 speakers), merchandise, transportation and prizes for the case competition winners. For the speaker series, we used funding for food and refreshments, speaker gifts (we had more than 5 speakers in total), and for marketing which included Facebook boosting.

**Share specific stories of how the funds assisted your club's work, which, in turn, contributed to the vibrant spirit of our Skule community or impacted the wider community:**

Our goal at UTBA is to act as a central hub for students who are passionate about business across different disciplines. We have hosted multiple events in the 2016-2017 school year to provide students the opportunities to learn about different business areas, careers, and work on professional development. This wouldn't have been possible without the funding we have received. One of our largest events was the UTBA annual conference. We hosted a full day conference which featured speeches from two keynote speakers, two interactive discussion panels, a leadership workshop and a case competition. The management consulting and entrepreneurship panel gave the conference participants a chance to tap into the minds of founders, entrepreneurs, management consultants and industry leaders and allowed them to build their network. A 45minute interactive workshop was also provided by Humphrey Group about speaking as a leader. Lastly, we ended our conference with an entrepreneurship case competition which brought together the skills and ideas the students were exposed to throughout the day. The funding allowed us to acquire great venues to host the event, extra rooms to carry out our case competition, purchase food to provide the participants, acquire AV equipment to display all presentations, promote the event and purchase items to use as gifts for delegates and speakers.

Using the funding to increase the quality of our event raised the overall successfulness of the conference as we saw an increase in participation compared to previous years. We were also able to host amazing influential speakers and hope to build our brand going forward, creating an even more powerful business conference in the years to come.

**Why was this funding important to your club? Please also indicate all sources of funding from the Centralized Process for Student Initiative Fund:**

With the funding, UTBA was able to hold events that introduced businesses to students from various disciplines, especially students in engineering. It was possible for UTBA to hold Speaker Series, which involved industry professionals from diverse fields to introduce strategies and suggestions to students, and the themes included women in business, entrepreneurship, and Master degrees in business. Also, the annual UTBA conference, which took place on March 18th, 2017, focused on educating students on the entrepreneurship and consulting industry, while enabling them to participate in case competitions, where



they could apply what they have learned to a real world business related problem. Overall, with the funding, UTBA could hold events that could benefit students from any background with a chance to grow their network, ask questions to professionals and learn about careers in business.

**Did your club engage any alumni (whether as participants, coaches, speakers, volunteers)? Please indicate which alumni, how many alumni, the dates of events and in which capacity they participated (if applicable):**

UTBA's events engaged alumni from the University of Toronto Faculty of Applied Science & Engineering. The UTBA annual conference that was held on March 18<sup>th</sup>, 2017, and approximately 60 delegates came to the event. Many of them were from the Faculty of Applied Science and Engineering, and the winner of the case competition was from the University of Toronto Faculty of Applied Science and Engineering as well.

Xerxes Wania, MASc of Engineering (1989), Akash Chokshi, BSc of Electrical Engineering (2010), and Payman Berjis, BSc of Civil Engineering (2009) and MASc of Civil Engineering (2012) participated at the UTBA annual conference as guest speakers for the panel discussions, and as judges for the case competition.



Left to Right, Top to Bottom: Kaitlyn Shearstone, Orgeta Tota, Ksantia Lila, Coe Lee, Basit Ali, Ranminie Perera, Norihiro Miyazaki, Yeh Seul Bang



# University of Toronto ChemE Car Design Club



## Total Amount of Funding Awarded: \$5,500

The University of Toronto ChemE Car Design Team is a multidisciplinary engineering club where students work on designing and building an autonomous, chemically powered, small car model. The 2016-2017 academic year marked the club's transition from its pilot phase to its fully operational phase. This year, we launched 4 sub-teams that collaborated together to design and build our prototype and final car. These teams were: Power Source, Stopping Mechanism, Mechatronics, and Research & Development. The support that we received through the Centralized Process for Student Initiative Funding (CPSIF) has made it possible for these teams to operate and establish our design team.



The funding provided from CPSIF allowed the student members of ChemE Car to purchase the materials they needed to gain hands on experience through dynamic team research, building, and testing involving iterations to achieve design challenges. More specifically, we were able to purchase chemical, electrical, and mechanical equipment for the design and construction of prototype models. These purchases included various solvents and catalysts, activated carbon sheets, pipe fittings, pipe cutters, grinders, a microcontroller programmer, ceramic capacitors, resistors, current amplifiers, voltage boosters, and 3D printed gears and wheels.

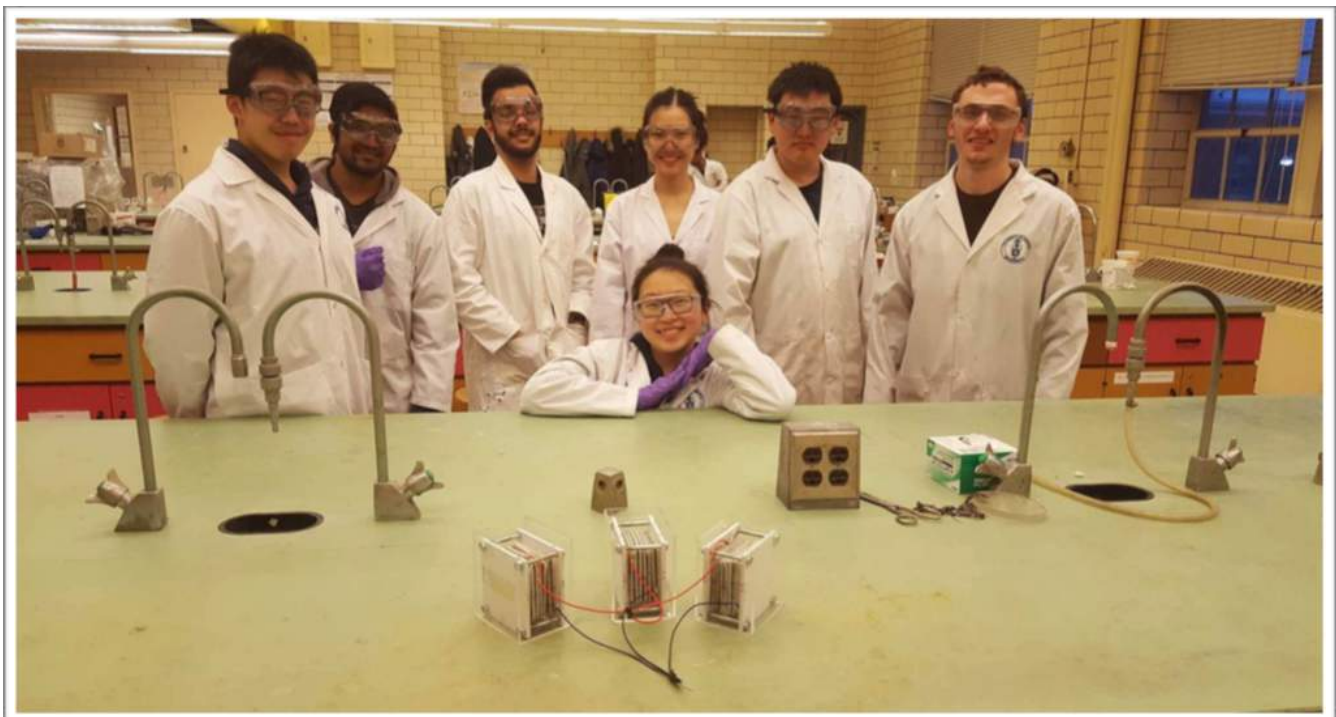
This year, ChemE Car's outreach initiatives primarily focused on educating students about our club and encouraging them to be involved in our day-to day operations. Early in the year, we participated in University of Toronto's annual Frosh week clubs fair. We used this opportunity to promote ourselves to new students and gauge the interest of our peers. At this event, over 120 students signed up to our mailing list and expressed interest in being active members of our team. Following this event, we hosted an information session for those interested in joining and had over 60 attendees. Since then, our presence in the chemical engineering department grew stronger, expanding our mailing list from 120 to 147, and increasing our team members by 12 students. Most recently, upon invitation, we presented our a research poster showcasing our designed car at the 32nd Annual Chemical Engineering dinner for alumni, faculty, and students.

Without this funding, our club would not have been able to attract new student members and fulfill its goal of offering true multidisciplinary experience for chemical engineering students. We will continue to expand our engagement with students from other disciplines and work on collaborating with alumni in order to foster professional development. In the future, we hope to inspire more students to contribute to a better future where transportation is no longer dependant on fossil fuels. Upon continuous support from University, alumni, and other student groups, we will work towards realizing our vision to upscale operations from a perfected small car model into an environmentally friendly, one-passenger-sized, autonomous vehicle.





Team Leads with research poster at the 32nd Annual Chemical Engineering Dinner.



Power Source Team members with completed Aluminum Air battery in the Wallberg Lab where design team operations are mainly based.



# University of Toronto Concrete Toboggan Team



## Total Amount of Funding Awarded: \$5,500

This year the University of Toronto Concrete Toboggan Team received a total of \$5500 through the Centralized Process for Student Initiative Funding. The breakdown of the funding was

- \$2000 from the Engineering Society
- \$1500 from the Department of Civil and Mineral Engineering
- \$1000 from the Engineering Alumni Association
- \$500 from You're Next Career Network
- \$500 from the Department of Mechanical and Industrial Engineering

The funding we received through CPSIF was vital to our team's many successes this year, including a 4th place overall finish and 2nd place finish in the races at this year's Great Northern Concrete Toboggan Race in Winnipeg. We used the CPSIF funding to purchase various materials for our toboggan including carbon fibre and metal for our roll cage, concrete mix materials for our skis and various mechanical components for our steering and braking systems. Without CPSIF Funding we would not have been able to produce such an innovative and well performing toboggan or experiment with our carbon fibre roll cage and ultra high strength concrete mix. CPSIF funding also allows us to send several students to the competition and ensure the financial burden does not deny them the opportunity to meet and network with students from across Canada and the US, as well as industry and academic experts that sponsor and judge the competition. This year our team also held it's first annual open house for sponsors, faculty and alumni on March 31st. Several recent team alumni, as well as a handful of professors and sponsors were in attendance to check out this year's toboggan, and to hear about the experience gained by members of this year's team. It was a very nice event to wrap up the year and we look forward to seeing even more of our supporters out at next year's event.



Team photo with our toboggan after this year's races



A photo finish in our race against Ryerson ending in a comeback win after a slow start



# University of Toronto Consulting Association (UTCA)



## Total Amount of Funding Awarded: \$2,200

This year, the University of Toronto Consulting Association (UTCA) received \$2200 from CPSIF towards consulting oriented competitions and networking events benefitting the University community. The funding was used towards audio visual equipment, catering and venue bookings for Consulting 101 (September 22nd 2016), Ace the Case workshop series (October 4th to November 8th 2016) and the Toronto Strategy Summit (November 26th 2016).

### Consulting 101:

On September 22nd 2016, we hosted an introductory consulting workshop, “Consulting 101”, bringing together students with an interest in consulting and notable alumni to share their knowledge and experience in the industry. 30 students had the opportunity to meet with 10 alumni and soon to be graduates accepting consulting oriented full-time job offers in 2017. Alumni and graduating students from the Faculty of Applied Science and Engineering included Fady Soliman, Anosh Waheed, Alex Wong, Anton Blochtchinski, Amanzhol Zhangheldin, and Vibhor Sachdeva. Our team facilitated a mock case, brainstorming session, panel discussion, and refreshments for all participants.



Marketing for Consulting 101 Event



Ace the Case participating students. 13 students selected from over 80 applications!

### Ace the Case:

Our Ace the Case workshop series between October 4th and November 8th 2016 featured speakers from Boston Consulting Group, Monitor Deloitte, Accenture, and Bain & Company in interactive consulting oriented discussions and problem solving. Thirteen University of Toronto students (both graduate and undergraduate) from across the university community were selected from a highly competitive pool of over eighty candidates. In this casual on-campus environment, no questions were off the table. Students were introduced to a network of successful consultants and industry insiders. Notable alumni and soon to be Engineering graduates leading the workshop, included Malik Ismail and Amanda Wai. The executive team organized audio- visual equipment and refreshments for each workshop.



### Toronto Strategy Summit:

The Toronto Strategy Summit is UTCA's annual flagship case competition. On November 26th 2016, we engaged 100 students from across Ontario in a one day competition and networking event at the Toronto Region Board of Trade in the heart of downtown Toronto. The case problem was inspired by the real-world challenges of a Toronto tech start-up and UTCA sponsor, Tribalscale. Twenty professional consultants from Bain & Company, Accenture, Monitor Deloitte, Oliver Wyman, Pricewaterhouse Coopers, and LoyaltyOne participated as judges. Engineering alumni included Anosh Waheed and U of T alumnus Jake Brockman. All participants benefitted from a unique competition model that allowed teams to integrate feedback from the judges in final round presentations. Not only were students given the opportunity to meet consulting professionals and connect with their Ontario peers, but each sponsoring firm received a resume book including the contact information and experience of each student participant; expediting the hiring process and advancing students' career prospects. To facilitate this large-scale event, we organized four competition rooms, each with audio-visual equipment, and a tasty buffet lunch.

From left to right: Abdul Moiz Muhammad, Avi Sharma, and Andrew Shaker



### Thank you!

CPSIF support has allowed UTCA to continue its sixteen-year tradition of engaging over 2000 University of Toronto students and countless alumni in career building and success in consulting. The events described herein would not have been possible without contributions from You're Next Career Network, the Engineering Society, the Department of Mechanical and Industrial Engineering, and the Engineering Alumni Office.



# University of Toronto Emergency First Responders



**Total Amount of Funding Awarded: \$2,100**

Founded by a small group of engineers, the University of Toronto Emergency First Responders (UTEFR) is a student-led volunteer group whose goal is to provide first-aid education and quality pre-hospital care to the entire U of T St. George community. Just this past year, we have been dispatched to a variety of high-profile campus events, such as Convocation, Frosh Week, and Skule Nite, where our members have worked alongside Campus Police and various student organizations to ensure the safety of U of T students. It is thanks to the generosity of the Faculty of Applied Science and Engineering that we are able to operate and we are very grateful for your contributions.

This past year, we have received \$2,100 in funding through the CPSIF, from Mechanical & Industrial Engineering, the Engineering Society, and the Engineering Alumni Office. Much of this funding was used to purchase important medical equipment and improve responder uniforms. These include things like V-Vacs, AEDs, oxygen tanks, vitals kits, and high-visibility safety vests. We have responded to many emergency events on campus and know that proper equipment and uniforms are crucial to providing high-quality care during emergency situations.

Building on our work from previous years, we also wanted to continue our commitment to producing highly-skilled responders. Through CPSIF funding, we were able to organize first-aid certification courses for new responders at a reduced cost and purchase medical training equipment for responders to practice with. Funding was also used to help run our bi-weekly training workshops that we provide for free throughout the entire year. These training sessions are important for the professional development of our members and help students from various disciplines come together and bond over their mutual interest in first-aid.

None of this would have been possible without donations from the Skule Fund for Education and the Faculty of Applied Science and Engineering. We are truly thankful for your help and hope to continue providing first-aid training and services to students throughout the U of T community.



**Top:** Pier Taruc, Mei Huang, Joseph Choy, Henry Che, Laura Best, Tijjana Despot **Bottom:** Jinyoung Lee, Amra Das, Sarah Dhiyaa, Megan Verrydt, Vivian Szeto



# University of Toronto Energy Network (UTEN)



## Total Amount of Funding Awarded: \$500

UTEN received \$500 from CPSIF. The funding was used to purchase materials for events, particularly food (party sandwiches), drinks (coffee) and materials specific to the events (handouts). UTEN also received \$200 from UTERN, the UofT Environmental Network.

Ex. Party sandwiches from the Pickle Barrel and coffee from Tim Hortons were served at our Infrastructure for Sustainable Cities event. UTEN also printed color brochures with information on the guest speakers and their companies. The event was attended by 70 people.

Another event hosted by UTEN examined the Ontario Climate Action Plan. Food and beverages are essential to encourage people to stay at school late in the evening to attend events. Our events focus on transformative engineering issues relevant to energy systems, such as sustainable buildings, and educate students on opportunities in the workplace.

UTEN invites guest speakers from a variety of energy industries to engage with students and provide meaningful networking opportunities.





# University of Toronto Engineering Finance Association (UTEFA)



## Total Amount of Funding Awarded: \$250

The University of Toronto Engineering Finance Association (UTEFA) is a Skule club with the mission of providing engineering students with a level of financial literacy and financial analysis knowledge beyond that of which is provided through general coursework. Our club has successfully prepared engineering students with the tools required to pivot their careers in the direction of finance since its inception in 2010. As such, a significant resource that UTEFA provides its members with is its diverse alumni base which offers unique networking opportunities and avenues for non-traditional career advice.

In order to successfully engage this alumni base, UTEFA hosts an Annual Alumni Pub Night which serves to facilitate interaction between current members and alumni. This year, our Alumni Night was held on Thursday, April 6th. Four alumni of UTEFA were in attendance: Bill Mufan Li, Steve He, Michael Tang, and Volodymyr Miklyukh. Prior to general networking/conversation, each alumnus briefly introduced themselves and their career path. An event of this size requires light refreshments, the cost of which was awarded to UTEFA (\$180.10). The coverage of these costs ensured that the event was as enjoyable as possible and fostered a casual yet professional setting.

## OUR ALUMNI

Check out where our alumni can be found.





# University of Toronto Engineering Kompetitions



**Total Amount of Funding Awarded: \$5,800**

## Introduction:

The University of Toronto Engineering Kompetitions (UTEK) would like to sincerely thank all the departments/divisions associated with the Faculty of Applied Science and Engineering (FASE) for providing UTEK \$5800 in combined funding. Your contribution was pivotal in the success of our annual competition. Not only was the funding instrumental in enabling us to host the largest competition to date, but also helped us send the winners to the annual Ontario Engineering Competition (OEC).



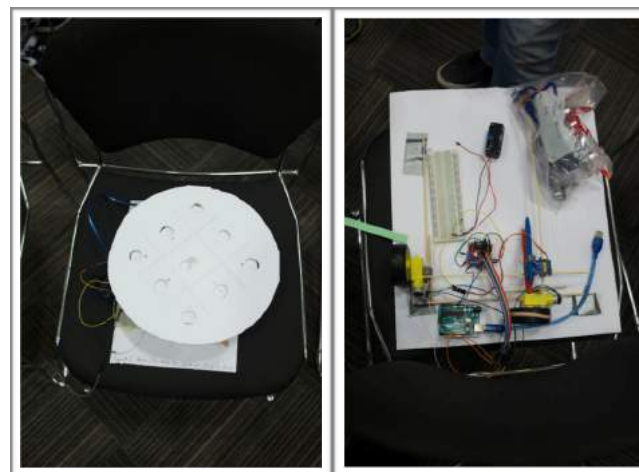
Students working on their submission

## Specific Uses of Funding:

### Competition Equipment :

Funding received from CPSIF enabled UTEK to purchase equipment for our annual competition. For this academic year, we purchased 70 Arduino Unos for the participants of our senior design competition. The participants were required to use the Arduino micro-controller to design a mechanical system and implement a software AI that played tic-tac-toe against a human opponent.

In addition, the funding was used to purchase an assortment of seeds, beans and prototyping materials for our junior design competition. The junior design competition challenged our participants to create a mechanical device capable of sorting small seeds or beans into containers.



Completed Tic-Tac-Toe AI prototype

### Venue and Food Costs:

The funding received this year for UTEK enabled us to relocate the annual competition from the Bahen Centre to the MaRS Discovery Building. Although the new venue was a significant expense for our competition, we were extremely satisfied with the decision to relocate the event. The MaRS Auditorium was overfilled with over 350 students from the Faculty of Applied Science and Engineering for our kick-off keynote.

Over the two day competition, providing food for students was pivotal to ensure the success of the competition. Without a balanced lunch (during both days of the competition), it would have been extremely difficult for students to work for 6 to 8 hours on their competition submissions. The funding acquired through CPSIF enabled UTEK to provide food to students for both days of our competition.



### **Awards for Winners:**

Each year, UTEK winners not only go on to represent the University of Toronto at the Ontario Engineering Competition, but are also rewarded for their excellence at our awards ceremony. This year, UTEK was delighted to award small drones to our Senior Design and Programming competition winners, as well as Cards Against Humanity board games to our Junior Design, Innovative Design, Consulting, and Debate competition winners.

### **Enriching the Skule Community:**

On January 21-22, 2017, the University of Toronto Engineering Society was proud to host the annual UTEK competition at the MaRS Discovery Building. The annual competition was made possible through the generous support of all the departments and organizations across the FASE. The annual competition attracted over 350 students this year. Through the continued support provided by CPSIF, the UTEK competition was able to accommodate more students this year. Further, we were able to send more students to the provincial and national competitions.

### **Why is funding important to us?**

This year, UTEK recieved funding from:

- Department of Mechanical and Industrial Engineering
- Department of Chemical Engineering & Applied Chemistry
- Division of Engineering Science
- The Edward S. Rogers Sr. Department of Electrical & Computer Engineering
- Engineering Alumni Association
- Institute of Biomaterials & Biomedical Engineering

We are incredibly thankful to all the departments and organizations across the FASE who enabled us to host a successful competition this year. Your funds are pivotal in ensuring that we can accommodate a greater number of students in our annual competition.

### **Alumni Engagement:**

The following alumni and faculty members were invited as judges at this year's competition on January 21-22, 2017.

- |  |  |
|--|--|
| 1. Peter Murphy <a href="mailto:pete.murphy@mail.utoronto.ca">pete.murphy@mail.utoronto.ca</a>   | 10. Jason Bazylak <a href="mailto:jbazylak@mie.utoronto.ca">jbazylak@mie.utoronto.ca</a>                 |
| 2. David Urness <a href="mailto:davidurness@gmail.com">davidurness@gmail.com</a>                 | 11. Peter Weiss <a href="mailto:weissp@ecf.utoronto.ca">weissp@ecf.utoronto.ca</a>                       |
| 3. Albert Huynh <a href="mailto:albert.huynh@mail.utoronto.ca">albert.huynh@mail.utoronto.ca</a> | 12. Siobahn MacLean <a href="mailto:siobhan.maclean@ecf.utoronto.ca">siobhan.maclean@ecf.utoronto.ca</a> |
| 4. Surath Gomis <a href="mailto:surath.gomis@mail.utoronto.ca">surath.gomis@mail.utoronto.ca</a> | 13. Valentine Neiman <a href="mailto:valneiman@gmail.com">valneiman@gmail.com</a>                        |
| 5. Arun D. oldtomjoad@gmail.com  | 14. Fabian Chow <a href="mailto:fchow@deloitte.ca">fchow@deloitte.ca</a>                                 |
| 6. Ali Rizvi <a href="mailto:arizvi@flarian.com">arizvi@flarian.com</a>                          | 15. Mehran Hydary <a href="mailto:mehran.hydary@gmail.com">mehran.hydary@gmail.com</a>                   |
| 7. Kenny Kimmis <a href="mailto:mdkenny.kim@mail.utoronto.ca">mdkenny.kim@mail.utoronto.ca</a>   | 16. Gideon Wilk <a href="mailto:gideonwilk@gmail.com">gideonwilk@gmail.com</a>                           |
| 8. Amy Bilton <a href="mailto:bilton@mie.utoronto.ca">bilton@mie.utoronto.ca</a>                 | 17. Yufei Man <a href="mailto:man.yuf@gmail.com">man.yuf@gmail.com</a>                                   |
| 9. Penny Kinnear <a href="mailto:penny.kinnear@utoronto.ca">penny.kinnear@utoronto.ca</a>        | 18. Michael Guerzhoy   |
|  | 19. Vivek Kesarwani  |



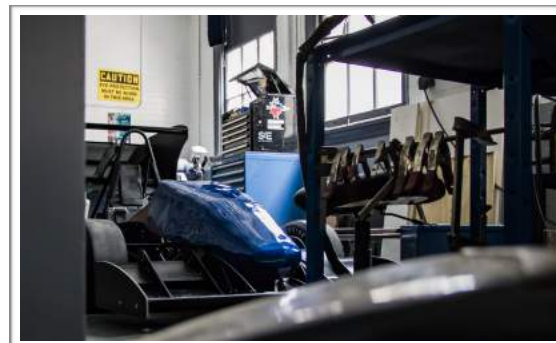
# University of Toronto Formula SAE Racing



**Total Amount of Funding Awarded: \$30,350**

## Funds Awarded:

Department of Mechanical & Industrial Engineering:	\$15000
Division of Engineering Science:	\$350
Engineering Alumni Association:	\$15000



## Use of Funding:

The funding awarded to the FSAE Team has three primary uses. First, the funds were used to design, build, and test our 2017 car (reference image below). Each year we completely design and build a new vehicle, and the funding provided through CPSIF ensures we are able to produce a competitive vehicle and an excellent learning environment for students. Secondly, the funds allowed our team to compete at various competitions around the world. They were used to pay for only vehicle and gear related expenditures, such as registration, carnets, shipping and brokerage, and many other expendables. This year our team travelled to competitions in Barrie, Michigan, and Germany. Lastly, the funds were used to promote the team, its sponsors, UoT and its alumni at various events throughout the year. For a list of events refer to the section below.

## Community Involvement:

Each year we are honored to represent our school, donors, and alumni when we were asked to share our project with audiences within and outside the Skule community. We are heavily devoted to assisting with recruiting and encouraging younger students to pursue an education within engineering. For example, this year we presented at GoEngGirl, at a panel discussion at the Canadian International Autoshow, displayed our car at a TEDx Youth event, provided shop tours to many high school students at the request of sponsors and faculty, and participated in the March Break tours as well as Engineer 4 A Day. In addition, our team acts as a client to ESP and Capstone projects. We are grateful that the work we do each year is recognized by many people to which we are able to participate in events that impact the community close-by and at large. Each year we see students decide to attend UoT and also join our team solely due to their discussions and encounters with members of our team at events from previous years. We hope that we are able to attend even more events in the years to come!

## Importance of Funding:

The funding we receive is the pillar for everything we do, and without it our team would struggle to be what it is today. The CPSIF funding is used for all costs that we are unable to avoid, to ensure that our team and our members are able to have an unparalleled experience. In addition, the funds are needed to help build a competitive vehicle that is able to stay on par with other teams in our competition. But above all, the funds are needed to allow us to innovate and make certain that our vehicle improves each year, and that our members learn to the best of their abilities. To conclude, CPSIF is used to break down financial barriers, which in turn allows for the best experience for everyone within and outside of our team.



### Alumni Involvement:

Each year, the involvement of alumni allows us to learn and continually improve. Alumni from many graduating classes acted as advisors to our team, as they added insight to our designs and manufacturing techniques (specifics can be provided). Also, alumni from our team have created an event called Formula North that we attended, which has recently been recognized and added to the FSAE global rankings. In addition, we were invited by UofT and Skule alumni to participate in events that they hold. For example, this year we participated in the TEDx Youth Toronto event hosted by UofT alumni for a selected group of high school students. We also annually attend the Skule Spring Reunion, and this year, we will be part of the Student Skule™ Fair. Also, we always invite alumni to our annual Shootout competition in late-September. Lastly, we are also planning to host an alumni, sponsor, faculty and student night this fall to show appreciation for everyone who has supported us as well as to connect students with graduates and industry professionals.



UT16 and Senior Members



2016 Formula Student Germany (UofT can be seen with the Canadian flag)



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# University of Toronto Engineering Toastmasters (UTET)

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## Total Amount of Funding Awarded: \$250

### Essential Uses of Funding:

- Membership Support and Promotional Materials
- Winter 2017 Open House
- Speaking Competition

We would like to express our appreciation for your support towards University of Toronto Engineering Toastmasters (UTET). Our objective is to help students overcome fears of public speaking by providing opportunities for them to share and present speeches through the Toastmasters education program. It is because of your continued generosity and support that we could maintain a positive learning environment for students to develop into confident, competent communicators and leaders.

We truly value the combined support from the CPSIF, the Division of Engineering Science and the Department of Electrical and Computer Engineering. Over the past academic year, we carefully allocated our awarded funding into areas that required it most: growing our membership through new initiatives and maintaining the quality of our weekly meetings. By having more members from diverse backgrounds and academic disciplines, we can not only share essential public speaking skills, but also discover and embrace cultural and personal differences.

Funding was used to produce promotional media for our Open House in January 2017 and Speaking Competition in March 2017, such as flyers and posters. This contributed to a significant rise in guest attendance for both of those events. Moreover, funding was used to cater food and drinks at those events. This allowed for a relaxed environment for students to network with others. Furthermore, we offered prizes at our speaking competition to entice public speaking enthusiasts. Toward the end of the year, we noticed that most of our guests had found out about the club through Facebook. So, we began to focus more on our Facebook presence and began allocating some funding to use the platform's marketing tools to push our posts.

We value the experience and outlook Alumni can offer, so we take the opportunity to invite them to our large events. Last March, we invited UTET's Past President Anand Gonsalves to judge our Speaking Competition. Throughout the event, he offered valuable feedback and advice to the speakers and audience regarding speaking and etiquette.

Looking forward to the upcoming year, we plan to allocate our awarded funding towards staging speaking workshops to engage the Engineering community, as well as the broader University of Toronto student body. Moreover, we will strive to improve our weekly meetings to ensure our members are truly enjoying the path to becoming better speakers.



# University of Toronto Industry Insights (UTII)



## Total Amount of Funding Awarded: \$300

Our organization was awarded \$300 in funding from the Centralized Process for Student Initiative Funding (\$200 from the Engineering Alumni Association and \$100 from the Engineering Society). Additionally, we were granted \$200 from the University of Toronto Graduate Student Union.

Most of our past and current budget was invested in food for attendees, appreciation gifts for professional guest speakers (U of T alumni), leaders in their industries such as **Amit Unadkat** — Senior Consultant, Ernst & Young LLP, **Andrew Chun** — Manager, Ernst & Young LLP, **Dina Brooks** — Professor, U of T Department of Physical Therapy Canada Research Chair (Tier 2) in Rehabilitation in Chronic Obstructive Pulmonary Disease, among others. We hold monthly events to unbiasedly analyze well-developed and growing industries in Canada.



Advertisement for our first event in 2017, Financial and Banking Industry



Aleem Hasham (Vice President of Operations) describes a good organization and style for resumes in our first Kick-Off event.



Ian Po, Vice President & Portfolio Manager at RBC Dominion Securities (MBA Schulich and BSc Engineering Science Alumni) as a guest speaker to introduce Banking and Financial industry to our attendees.





Yew Meng Khaw, UTII president, provides and insightful analysis about the banking industry and its big influence in the Canadian Economy.



Mehran Hydary, Business Technology Analyst at Deloitte Consulting, BASc in Electrical Engineering Alumni, tells his personal experience and story about how he found a very meaningful job, plus the importance in participating in extra-curricular activities.

**Healthcare**

**UTII PRESENTS:  
AN INTRODUCTION TO THE  
HEALTHCARE &  
PHARMACEUTICAL INDUSTRY**

- Demystify Canadian Healthcare & Pharmaceutical Industry


**Monday Feb 27 18:00-20:00 SS1083**

**Dina Brooks**  
- Professor, Department of Physical Therapy, U of T  
- Canada Research Chair (Tier 2) in Rehabilitation, Chronic Obstructive Pulmonary Disease

**Christina Ciapanna**  
- Clinical Manager, Joint Department of Medical Imaging, University Health Network

**Cindy Woodland**  
- Associate Professor, Department of Pharmacology and Toxicology, U of T  
- Director, Collaborative Program in Biomedical Toxicology & Applied Clinical Pharmacology Program

**University of Toronto Industry Insights**



Advertisement for our second event in February 2017, Pharmaceutical and Healthcare Industry. Most of the guest speakers were professors and leaders in their field.

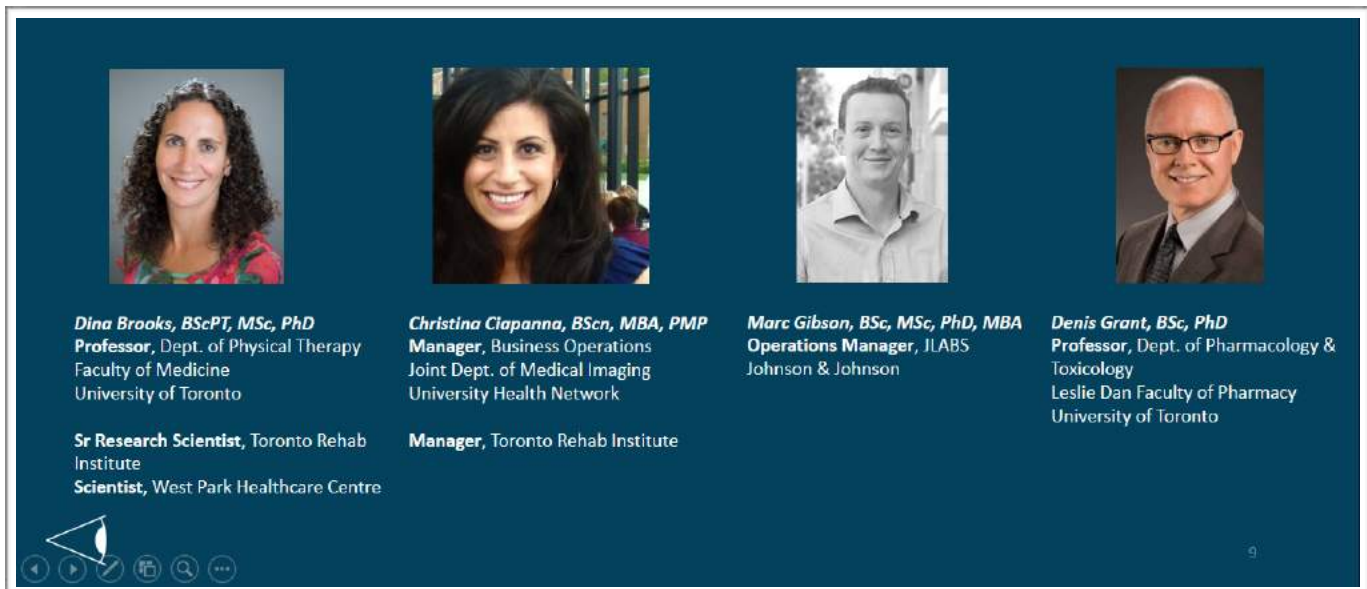


Aleem Hasham introduces our top leaders and well recognized guest speakers at Sidney Smith Hall



After the event, attendees have the opportunity to interact and ask questions directly to our distinguished guest speakers, while enjoying pizza and beverages. This interaction accelerates the process of networking at early stages in university students.

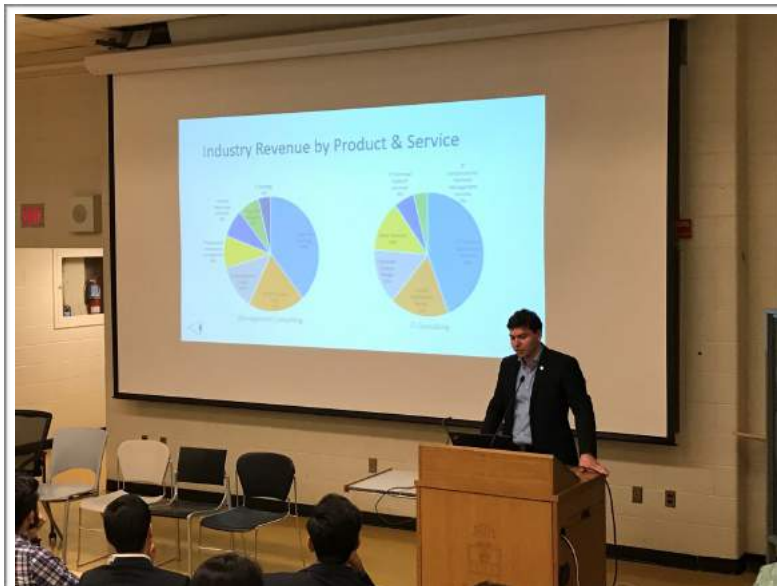




Pharmaceutical and Healthcare Industries are combined with leaders in Canada's Consulting Industry such as Dina Brooks, Christina Ciapanna, Marc Gibson and Denis Grant.



For March 2017, Yew Meng Khaw, UTII president introduces and outlook in the IT / Management Consulting Industry in Canada at the Medical Science Building.



Bogdan Raspopin, Director of Communication, shows revenues and profits by product service for the IT / Management and Consulting Industry



From Left to Right: Amit Unadkat - Senior Consultant, Ernst & Young LLP, Zaid Rab is a Staff Consultant in the Performance Improvement - Advisory Services practice of Ernst & Young LLP, Andrew Chun, Manager in People Advisory Services at EY, Alfred Inacio - Technical Account Manager, Tier1CRM Inc and And Hassan Dijirdeh - Digital Consultant, Deloitte LLP



# University of Toronto Engineering Ironsports Club



## Total Amount of Funding Awarded: \$250

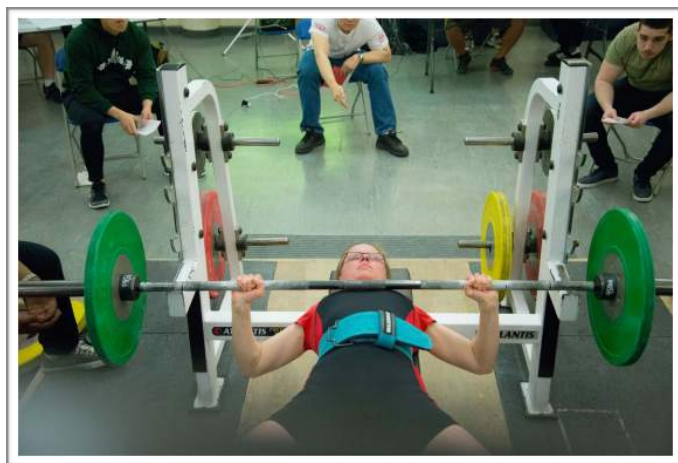
The University of Toronto Ironsports Club would like to thank CPSIF for their contribution of \$250. Our club has grown significantly since our inception in 2012, now including over 85 active members and 700 members on our mailing list. More than 15 of our active members are Engineering students or alumni, along with one of our co-presidents. We have also grown to include competitive weightlifters and powerlifters in addition to our recreational membership. Several of our engineering student and alumni members are now representing the University of Toronto at sanctioned International Powerlifting & Weightlifting Federation competitions.



The funding of \$250 provided by CPSIF helped to fund our seminar and training day events in October, January and March, our Bench Press & Deadlift competition in November, and our 3-Lift Powerlifting competition in April. On the following page we have provided a few photo highlights from these events. These events were designed to foster community among U of T student and alumni lifters of varying academic disciplines and lifting experience. For those very new to the sport, we have experienced members teach them the movements. After instruction, all lifters can participate in group training in an encouraging and motivating environment.

This combination of instruction, practice and pushing for new personal records in lifts, is all going on in the same space. We believe that our unique supportive environment helps students to keep up with a regular exercise regime. Lifting is also an excellent exercise to manage stress and often helps students build self-confidence and better relationships with their body.

We would like to thank CPSIF for their support of U of T Ironsports. Thank you for helping to provide students with the opportunity to find their strength outside the classroom.





# University of Toronto Music Clubs Initiative



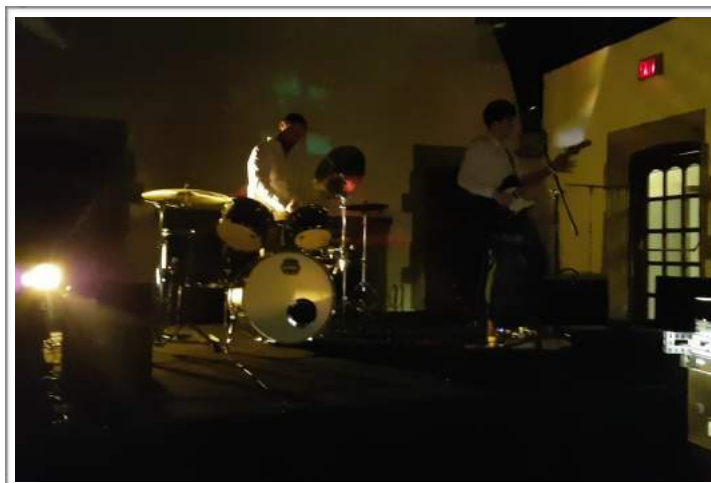
## Total Amount of Funding Awarded: \$250

Throughout this year U of T MCI held two major events. In the fall semester we held a concert at Einstein's pub on College and St. George Street. Six acts from the club performed at the event in front of a live audience. For this event funding was required to rent the necessary drum and audio equipment. Our second major event was held at Hart House during the spring semester. We held a battle of the bands where performers from U of T were once again given a chance to play in front of a live audience on U of T campus. There were also opportunities for interested individuals to help set up the show and judges for the competition were selected from the audience. Funding was necessary once again to rent the required equipment and provide food and beverage at the event. We also held several jam sessions throughout the year where individuals had the opportunity to meet other musicians and perform in a smaller inclusive environment. Ongoing funding is required for the maintenance of our equipment and we plan to upgrade a portion of our drum kit once the last bit of our funding is received.

Quite simply, without this funding, we would not have been able to provide the events we did this year. We felt we had a very successful term and the funding helped improve the vibrancy of the Skule community by providing individuals with an opportunity to seek music regardless of their skill level. All individuals are given an opportunity to perform, and watch or learn music through U of T MCI. Marketing for our events was predominately through our Facebook group. We did not track the number of engineers or alumni that attended our events. Please see the below pictures taken from multiple events this year all made possible by CPSIF funding.



Einstein's Concert



Hart House Battle of the Bands



# University of Toronto Muslim Student's Association (MSA)



## Total Amount of Funding Awarded: \$1,500

The MSA was blessed to have the support of the Muslim Students' Association and is very grateful for the continued funding support of the Engineering Society for allowing it to cater to the intellectual, spiritual and social needs of Muslim students by building a cohesive and unified community on campus. It also helped by providing opportunities for leadership development within MSA's student body. This year was a special year for the Muslim Students' Association at the University of Toronto (MSA), as it marked the first year of Engineering Alumni Association funding the club. The MSA is

proud to continue building strong relationships with various campus groups and associations that reflect the diversity of our community and campus. A significant part of our membership consisted of engineers that also form part of the Engineering and engineering alumni community. This year for instance, 2 of the 8 club executives, including myself, are engineering students.



This year we used EngSoc Funding to hold some exciting events mainly during Frosh. As a Muslim Engineering student, it can be difficult to find a comfortable, inclusive space during orientation week in which one can have fun, make new friends, and express themselves. This initiative is meant to address exactly that need. Our goal as a club was to organize an eventful week that will provide a safe space for new Muslim students to become familiar with the downtown core, campus resources, UofT as an institution, the Muslim Chaplaincy and ultimately find comfort and a sense of family and community with the MSA. We hope to provide these students with a better understanding of who, what, when and where they can go to in any situation they may encounter during their years at UofT. The following is a list of the main events that happened during Frosh:

1. The Amazing Race: Two groups were formed and given clues to find 5 locations. The winning group received a \$10 Tim's cards. This activity allowed new students to become familiar with the city as well as the campus.
2. Centre Island Trip: The group headed out to Centre island, started the night off with a BBQ, then a bonfire, and ended it off with a tie-dye activity.
3. Paint and Pizza: Our VP Comm lead the group with a painting activity where students got to paint mini rectangular canvases that will be put together to make a mural in the office.
4. Sisters Social: Discussion about what it's like to be a Muslim woman within the Muslim community.
5. Soulfood: Ustadh Amjad lead a discussion with the froshies and the volunteers, about topics to keep in mind with the start of their university experience and as a good way to get familiar with Soulfood and the resources that the MSA provides



6. UNI101 Major Keys to Success: A group of our alumni came in to speak about what they wish they were told before starting university. Topics touched upon were finance, resources, friendship, education, and mental health.
7. Red Carpet Dinner: We started off the night with the MSA team introducing themselves, then a quick speech from alumni and Professor Nouman Ashraf. After that dinner took place followed by an open mic performance which led to a warm wrap up to the week. The dinner ended off with bringing everyone outside for sparklers.

We hosted multiple events throughout the year that helped leverage our strong alumni relationships. The first of which was the UNI101 Keys to Success event in Frosh, which brought in alumni to discuss key challenges the frosh will face throughout their university life. The alumni provided valuable insights and engaged in key discussions with the students to ensure that they understood how they could deal with the challenges they might face.



Moreover, we held a mentorship program for our students. The MSA's Mentorship Program was created to connect professionals, upper and lower year students. The program would coordinate mentors/mentees on academic affairs, networking and overall university life. Finally, we held a grad students networking dinner for our students where they got a chance to network with graduate students, many of them Skule alumni.

Furthermore, as a community group, we believe that we should always provide a space for our alumni to comeback and engage with ongoing issues of interest to the community at large. We do not think of ourselves as just a campus group, but a place for all Muslims who frequent downtown Toronto to feel at home. As a result, many of our events were well attended by Skule alumni even though they do not specifically target them. This offered our members a chance to interact with alumni in a more social setting.

Many of our engineering alumni serve either in an official capacity as advisor or a non-official capacity. Some of our engineering alumni include Shafquat Arfeen, Muhammad Saleh, Saleh Firwana, and others.



These are just some of the very thrilling events we had held this year. Please do remember to check out our social media: Facebook, Instagram, Twitter and our website for more event details. Below you will find photos of posters and some event photos that truly highlight how your generous funds have helped our community this year. I sincerely hope that EngSoc and the Engineering Alumni Association community continue to show their undivided support to the MSA in the coming years so that it may continue to remain active and serve the community at large.



# University of Toronto Operations Research Group (UTORG)



## Total Amount of Funding Awarded: \$1,750

The University of Toronto Operations Research Group (UTORG) serves the interests of the Operations Research (OR) community at the University of Toronto by hosting social and academic events aimed at developing professional and research-based skills. These events include: i) lunch talks, ii) workshops/seminars, iii) distinguished speaker sessions and iv) coffee breaks. UTORG has received \$1,750.00 from the Department of Mechanical & Industrial Engineering, which represents over 70% of UTORG's annual budget. These funds allowed UTORG to host the aforementioned events and make them impactful for everyone who attended, allowing the group to effectively transfer both technical and soft skills.

Over the past year, UTORG has organized ten (10) student lunch talks, yielding graduate students the opportunity to present their research and receive feedback in a positive, informed, and supportive environment. Additionally, UTORG invited three (3) distinguished speakers, namely: Professor Scott Sanner from University of Toronto, Professor Christopher Ryan from University of Chicago Booth School of Business, and Professor Steven Shechter from University of British Columbia. Each gave research presentations and interacted with students over lunch or one-on-one discussions. During these lunches, students had the opportunity to ask questions and share research ideas with these established professors in an informal environment.

To promote social interaction between graduate students from various research groups, UTORG hosts a variety of social events. Last August UTORG hosted Optapalooza, a graduate student hack-a-thon, where teams of graduate students from mathematics, computer science, and engineering competed to model and solve complex problems using techniques from artificial intelligence and operations research. In September the group hosted a Trivia night where graduate students answered questions ranging from facts about the University of Toronto to movie soundtracks. The 3rd Annual Pumpkin Carving Night was a great success, attracting students with little experience in such festivities – the event was greatly enjoyed by all, fostering a great environment for peer-to-peer networking. In December, UTORG hosted a Christmas social where attendees had a chance to design and build their very own gingerbread house.

In the winter term, there was more focus on technical workshops to help develop essential skills for graduate school. This started off in February when Professor Aleman was invited to give a tutorial on scientific writing, which gave students a better understanding of both the technique and process behind good scientific writing. During this term, UTORG also hosted our 2nd annual Coding Month to provide beginner and intermediate tutorials on four programming languages: Python, SQL, Scala and MATLAB. These tutorials were led by senior Ph.D. candidates, and were attended by over 120 graduate and undergraduate students.

Over the years UTORG has grown as a student organization, largely thanks to alumni support. We have hosted events that are directly related to the social, academic, and professional interests of the student body. In the following year the group plans to continue improving annual events, making them even more exciting and engaging. In particular, UTORG plans to fine tune the operation of Optapalooza and increase the number of lunch talks that we host each year.



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# University of Toronto Project Holodeck (UTOPH)

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## Total Amount of Funding Awarded: \$3,100

Since September of last year, UTOPH has been awarded a total of \$3100 in funding. This comprises \$2000 from the Department of Electrical and Computer Engineering, \$500 from the Engineering Alumni Association, and \$600 from the Engineering Society.

We are still a newly developing club, slightly under 1 year old when the funding was awarded, and this was our first significant budget, therefore much of this funding was put into club infrastructure. We purchased an HTC Vive virtual reality system for almost \$1200, and a used computer for \$900 to run it. This already took up a majority of our funding. These were used to train members in Unity 3D (a VR-capable game development software), to demonstrate the Vive and (sponsored) Leap Motion controller, and to interface with Arduino microcontrollers, which are the basis of our club hardware projects.

Much of the remaining budget was used for two projects. The first consisted of purchasing hardware, primarily aluminum, steel, and wooden parts, for an all-direction treadmill that can be interfaced with the Vive. The second was outfitting our new club space with shelving, storage bins, and drawer cabinets. The treadmill is an ongoing project, which will hopefully be exhibited at club fair, virtual reality conferences and other VR events on campus. Our club wants to establish itself in the long term as an incubator for VR and AR innovation, so we're trying to put together a strong assembly of custom-built hardware technologies before major demonstrations. So far, we have achieved a motion-tracking and tactile-feedback glove, and our next project is the treadmill.

We did not engage any alumni as of yet, but we did engage Professor Steve Mann for potential support of the club and recruitment of our members to his lab. Because most of our projects are still ongoing and the club membership is still limited in its dedication, I apologize that we were not able to organize a photoshoot with significant attendance suitable for promotional material.



# University of Toronto Robotics Association (UTRA)



## Total Amount of Funding Awarded: \$5,500

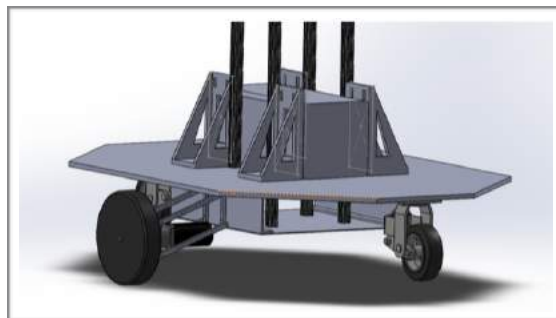
### Introduction:

The University of Toronto Robotics Association (UTRA) would like to sincerely thank all the departments/divisions associated with the Faculty of Applied Science and Engineering (FASE) for providing UTRA \$5500 in combined funding. Your contribution was pivotal in the success of our six robotics teams. Not only was the funding instrumental in enabling us to purchase new equipment for our existing teams, but also gave us the opportunity to create a new robotics team this year called RoboSoccer.

### Specific Uses of Funding:

#### Build Materials:

For the 2016-2017 academic year, UTRA dedicated a majority of its resources to design and build new robots to compete in the next academic year. This year a significant portion of our budget was allocated to building our autonomous rover for the Intelligent Ground Vehicle Competition (IGVC), and our new Combat robot for RoboGames. The funding received this year, enabled us to rapidly prototype, experiment with various designs, and iterate to achieve desirable performance benchmarks. Without the generosity and support of all our donors across the FASE, we would not be able to allow our members to experiment and learn about the engineering design process.



Design and Prototype of Autonomous Rover

#### Sumo Kits:

Every academic year, UTRA holds its annual SUMO Competition. The competition is targeted towards first and second year students who would like to learn about robotics, and create their own mini-sumo robots. UTRA is proud to help subsidize and provide robotic kits for every engineering team that partakes in our competition. Not only do we provide engineering students the parts and tools required to build and program their robots, we empower them to continue the pursuit of robotics in their everyday lives. The SUMO competition culminates with an epic, head to head, sumo fight against two student built robots. The competition is truly awe-inspiring and is reflective of the hard work students have put into their robots over the course of the academic year.



Annual Sumo Competition



### **Creating a New Robotics Team:**

For the 2016-2017 academic year, UTRA endeavoured to create a new robotics team, RoboSoccer. Creating a new robotics team is no trivial task. Without the support of our donors and CPSIF, we would not have been able to make the investments necessary to begin to build the infrastructure required for this team. Throughout the year, we invested funds in purchasing hardware required to design a computer vision system. The vision team, has been able to make significant progress in understanding how it can process visual and auditory inputs in order to determine where a robot is physically located on a map, with respect to opponents and landmarks. UTRA is expected to expand its RoboSoccer team next year with significant investment in the design and development of a bipedal exoskeleton.



**RoboSoccer Vision Team Meeting**

### **Enriching the Skule Community:**

From our annual SUMO competition, our year-round autonomous rover and combat robot build season, to our weekly outreach robonars, UTRA aims to enrich the Skule community by encouraging students to pursue the fields of robotics and mechatronics. The funding we receive from CPSIF is critical in ensuring that we can continue to provide students within the FASE the opportunities to excel and thrive in emerging and exciting fields. With your continued support we aim to send several of our students to international robotics competitions to represent the University of Toronto.

### **Why is funding important to us?**

This year, UTRA received funding from:

- Department of Mechanical and Industrial Engineering
- Division of Engineering Science
- The Edward S. Rogers Sr. Department of Electrical & Computer Engineering
- Engineering Alumni Association
- Institute of Biomaterials & Biomedical Engineering
- You're Next Career Network

We are incredibly thankful to all the departments and organizations across the FASE who enabled us to design incredible robots, innovate beyond the status quo and empower students to pursue robotics within their daily lives.

### **Alumni Engagement:**

UTRA would like to thank the Engineering Alumni Association for providing us Leap Motion Controllers. We would like to additionally thank the Division of Engineering Science for inviting us to the EngSci Alumni Dinner to showcase our robots to numerous alumni.



# University of Toronto Seismic Design Team



## Total Amount of Funding Awarded:

### Examples of How the Funding Was Used:

- Purchasing construction material & accessing testing equipment
- Shipping the building
- Competition registration fees

### Share specific stories of how the funds assisted your club's work, which, in turn, contributed to the vibrant spirit of our Skule community or impacted the wider community:

This year's Skule funds played a critical role in providing undergraduate students with a chance to work on a hands-on project designing and constructing a cost-effective structure to resist seismic loading. This is the first ever Skule design team focused on structural & seismic engineering. The founding of our team had successfully brought together passionate students from both the Civil and Engineering Science Infrastructure Option departments and allowed them to delve into a subject that is usually not taught at the undergraduate level.



From left to right: Kevin Bi, Daniel Pekar, Isaac Chung, Liam MacKichan, Cora Pulnicki, Lucy Yan

### Why was this funding important to your club? Please also indicate all sources of funding from the Centralized Process for Student Initiative Fund:

This funding was important primarily for constructing and shipping the team's balsa wood model to the Undergraduate Seismic Design Competition, held this year in Portland. Also, the appropriated funds allowed us to construct and test two full scale models in advance of the competition, allowing us to more fully understand our design. In addition, it was put towards our annual team banner. This is used in outreach to foster relationships with younger undergraduate students.

### Did your club engage any alumni (whether as participants, coaches, speakers, volunteers)? Please indicate which alumni, how many alumni, the dates of events and in which capacity they participated (if applicable):

Reza Hessabi, a postdoctoral student at the University of Toronto, gave a presentation to introduce undergraduates to the basic concepts of Earthquake Engineering. At this talk we had a couple of graduates from the Engineering Science program.



# University of Toronto Supermileage Team (UTSM)



## Total Amount of Funding Awarded: \$19,150

Department of Mechanical and Industrial Engineering:	\$10,000
Engineering Alumni Association:	\$4,000
Engineering Society:	\$3,000
Department of Electrical and Computer Engineering:	\$2,000
Department of Engineering Science:	\$150

The University of Toronto Supermileage Team's goal was to design lightweight, ultra fuel-efficient vehicles to compete at the annual Shell Eco-Marathon competition. The Shell Eco-marathon challenges student teams from around the world to design, build and test energy-efficient vehicles. This April, our team travelled to Detroit, Michigan to compete for the fifth time in the globally recognized competition. The team came in 5th place out of over 80 teams in the gasoline prototype category with a mileage of 1431 mpg. This would not have been possible without continuing support from the faculty and Skule community.



University of Toronto Supermileage Team at the Shell Eco-Marathon Americas 2017 competition with their gasoline prototype vehicle.

Funding this year was put towards a number of projects, including the redesign of our rear axle to incorporate a better braking system and reduce rolling resistance, as well as manufacturing new vehicle windshields to improve visibility and enhance driver safety. The funds were specifically used for the materials and the machine shop time required to make these projects come to fruition. The budget was also spent on the electric vehicle, for which new circuitry was designed to run the motor. This longer term project will yield results next year when the finalized system competes at the Shell Eco-marathon in California. Another project we will be working on over the summer is the redesign of the aerobody for our vehicles. This academic year we had a mechanical engineering capstone team working on the design which will be further optimized by members of the team in the next few months. A large portion of our current funding will be put towards the manufacture of new molds once this design is complete.

This club has had a significant impact on Skule and the wider community. The team has held media unveiling events to engage UofT students in the work that we do and educate members of our community on the importance of designing for a sustainable future. Team members gained extensive experience in manufacturing and design, and the funding this year helped improve our club space to get more students involved in the coming years. As the sophistication of our project continues to grow, we will be able to offer a greater incentive to new students who wish to join the team, not only by providing them the opportunity to learn about fuel-efficiency, but doing so through applying the skills they have learned in class to a real-life engineering design scenario.

On behalf of the University of Toronto Supermileage Team thank you again for supporting our initiative and promoting sustainability and fuel-efficiency in the UofT community.



# University of Toronto Mining Games Team

## Total Amount of Funding Awarded: \$500

### Examples of How the Funding Was Used:

The Canadian Mining Games is an engineering competition that takes place annually between 10 different engineering schools within the mining discipline. The competition is 4-days long with 27 different events. The team will consist of 16 undergraduate students from the Lassonde Mineral Engineering Program.

One of the events that took place was a jackleg competition. A jackleg is a piece of drilling equipment used to drill rock bolts to provide support to the underground mine workings. With no mines nearby Toronto, our jackleg team travelled to Kirkland Lake, Ontario to be trained by Alamos to use the jackleg.

Funding helped our team to subsidize the travel expenses (gas, hotel) which was necessary to receive the training. Our jackleg team finished first place in the event, the first time the U of T team has placed in this event. Another event that took place was the Mine Rescue competition. With no one on our team experienced in Mine Rescue, we reached out to Ontario Mine Rescue for training. Ontario Mine Rescue held a four day training seminar for the team. Everyone finished with a certificate in Mine Rescue and the team came first in the Mine Rescue event at the Games, another first for U of T. Although Ontario Mine Rescue did not charge us for the training, we wanted to thank the instructors, so funding helped us to cover the costs of gifts.



Marko Lopac (left) and John Lindsay (right) competing in the Jackleg event.

### Why was this funding important to your club? Please also indicate all sources of funding from the Centralized Process for Student Initiative Fund:

Attending the Mining Games was very expensive, as a result of the high registration fees, training, and transportation costs, but this experience was very valuable for students. The Mining Games is very well known in all aspects of the mining industry. As such, many companies contribute to sponsoring the event, and send representatives to the Games. This provided important networking opportunities for the students participating in the Games. In fact, one of the members of the team received full time employment with Barrick Gold Corp., the title sponsor of the Games, after an interview he was offered as a result of doing well in one of the competitions. The Games also allowed students to meet other mining undergraduates from across Canada. As the industry is small and tight-knit, these students will likely be future colleagues, so the Games provides an opportunity to grow students' networks even further by meeting other undergraduates.

### Did your club engage any alumni (whether as participants, coaches, speakers, volunteers)? Please indicate which alumni, how many alumni, the dates of events and in which capacity they participated (if applicable):

Peter MacPhail, COO Alamos Gold Inc. organized the jackleg training at the Young Davidson Mine (operated by Alamos) in Kirkland Lake Ontario.



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# University of Toronto Mechatronics Design Association (UTMDA)

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## Total Amount of Funding Awarded: \$5,500

The Mechatronics Design Association (MDA) promotes a multidisciplinary environment where students with an interest or passion in mechatronics and robotics can come together. At MDA, these students are given the opportunity to learn about and apply mechatronics principles to a real life project. For the current year, we are competing in the International Autonomous Robot Racing Challenge (IARRC) held at the University of Waterloo on July 15-16 in 2017.

The funding was used mainly to purchase components for our autonomous racing vehicle. For example, we have spent over \$1,000 in buying the overall chassis of the vehicle, including various other materials and components for body modifications. We have spent over \$700 on electrical systems such as the main vehicle microcontroller, sensors and wiring. We are also currently in the researching stage of purchasing a LIDAR system, for which we have budgeted \$1,500. The rest of the spending will be during May and June for the final building and testing phases of our vehicle. We have also spent \$200 on administrative activities such as general meeting snacks and drinks, and website domain hosting to date.

We hope that with the funds we have received, we will be able to have a good showing at the IARRC. In doing so, we hope to represent U of T in a positive light within the Canadian engineering student community. As well, we hope to take any successes we experience this summer next year to recruit more members to our team, encouraging extracurricular involvement within the student base.

This funding was important to our club because it provided us with the means of achieving our goal of building an autonomous vehicle and competing in the IARRC this summer. While many hours of research and labor has gone into designing and building the rover, we would not be able to accomplish much without the funding. We have received CPSIF funding from ECE, MIE, and Eng Soc.

For the current year, we unfortunately have not engaged any alumni as of yet. We were originally hoping to contact a few alumni to speak to our members on various topics, but everyone has been busy with coordinating our move from GB basement due to renovations. We hope to engage alumni next year once our club room is established in the new engineering building.

As mentioned before, due to the GB basement move, we currently do not have any new photos. Once our new room is settled and everyone has had a chance to visit, we would be able to take some photographs to send them along with descriptions.



# Volunteering Engineering Experience Program (VEEP)



## Total Amount of Funding Awarded: \$1,160

### Introduction:

VEEP is an engineering student club that connects student teams with local not-for-profits (NFPs). We build websites, databases, product designs and organizational strategy for these NFPs, giving them additional resources so they can focus on delivering their core services to the community. Since our founding in January 2016, we have enabled 120 engineering students to give back to the community through their work with 25 NFPs (including Sick Kids, Girl Guides, and the Women's College Hospital).

### Select Examples of Funding Usage:

- Web Hosting for [uoftveep.com](http://uoftveep.com): Our website provides a platform for VEEP to a) share general information about who we are and what we do and b) allows us to match students with projects based on interests and skill sets
- Vertical Banner (to be purchased): The banner will contribute to our unified visual identity, which in turn helps develop a VEEP community distinct from our projects and NFPs. We hope that student participants will be able to leverage the VEEP community and network long after they complete their VEEP project.
- Food and Catering: This year, we had 5 workshops and orientation events, engaging alumni and partnering with other university divisions. At these events, we typically provide a light meal (e.g. pizza).
- Direct Project Funding:
  - Web hosting costs to enable students to develop a modernized website for the College-Montrose Children's Place
  - Tools to enable a project team to develop a pipeline layout for Arts828 Connexion, allowing for the automation of watering for their plants

### Testimonial Impact:

The students working with the Women's College Hospital are working on a trauma patient tracking project. Their work involves developing a deep understanding of the patient journeys of women who have experienced the unspeakable. The project has had a profound impact on the students and their worldviews. For one student, the project became his calling to work in healthcare operations research because 'there is nothing that has a more apparent meaningful impact on others'.

### Community Impact:

Apart from creating personal impact, we also impact students' technical skills. The students we work with sometimes gain summer internships to continue their work at the NFP (e.g. Sick Kids). In one project (Lonny's smile), students are working alongside doctors and professors to try to patent a design for a tricycle for children with disabilities. Others move on to successfully promote themselves in clubs across campus. While it is difficult to truly assess our impact on our students (how much of their success can we attribute to their involvement with VEEP), we are constantly reminded by those we work with that our mission is important, and has the potential to bring meaningful experiences to students.



### **Funding Importance :**

Without the generous support of the above funders, we would not be able to provide enriching real-world project experiences to students. The funding directly supports the club administration and provides prototyping budgets for teams to build meaningful products. If the club did not have access to funding, we would not be able to develop sophisticated and high fidelity prototypes.

### **Alumni :**

Kick-Off Event (mid-September 2016) :

At this event, we partnered with the Engineers Without Borders University of Toronto Chapter to host Terri Chu, an EngSci alumnus. At this event, Terri talked about her motivations for getting involved with the community. She also used her own life experiences (involving switching career paths from a high-paying financial services job, to a renewable energy start-up) to provide insight about taking meaningful risks. We had around 30 students attend this event.

Over the year, we hosted three workshops, each featuring the University of Toronto Career Centre, ILead and the Centre for Community Partnerships. Topics covered included professionalism, project management, and introspective reflecting on service. Presenters included Mike Klassen and Albert Huynh, alumni of EngSci and Industrial Engineering respectively.

This coming summer, we will be restructuring the program to investigate how we can engage alumni to become technical mentors for our projects. Given that students do run into technical difficulty, we believe this could be a fruitful opportunity.



Kick-Off Event



# Water Environment Association of Ontario (WEAO)



## Total Amount of Funding Awarded: \$700

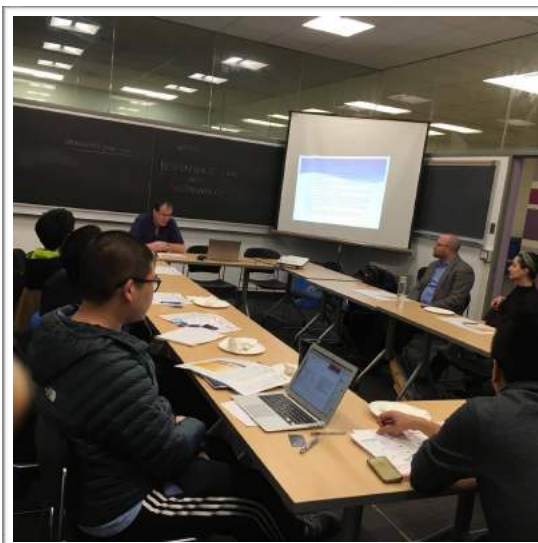
The \$700 of CPSIF funding received by the Water Environment Association of Ontario (WEAO) were used to host events to nurture students' interest in the water works and wastewater treatment professions. The events included a kickoff meeting, a panel discussion, a seminar, a movie night and a networking social.

CPSIF funding was used to purchase food and drinks for our seminar and panel discussion. The seminar featured a presentation on "Responsible Care and Sustainability in the Water Industry", where students had the chance to listen and ask questions to an expert on this field.

For the panel discussion, WEAO invited representatives from various sectors of the water industry (consulting, government, industry and academia), who engaged in a lively debate discussing current challenges faced in the water industry. Students also had the chance to learn about proposed solutions from a variety of perspectives. Our academia representative was a Skule alumnus!

CPSIF funding also helped subsidize venue costs for a joined networking social. This event was a collaboration between WEAO's chapters from U of T and Ryerson as well as the Ontario Water Works Association. The event also allowed Skule students to mix and mingle with peers and professionals who shared their passion for water-related issues.

We thank the Engineering Society, Skule Alumni and Civil and Chemical Engineering Departments for supporting WEAO's activities this past year. This past year, WEAO - U of T Chapter strengthened bonds with clubs both within and outside of U of T, while continuing to expand and connect the network of individuals with a passion for the water industry. We are determined to continue creating meaningful opportunities to foster Skule members' interest in water-related issues.





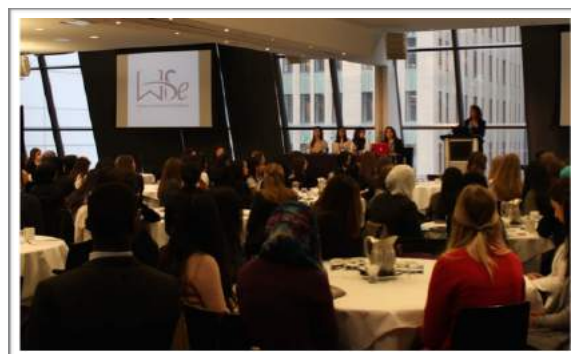
# Women in Science and Engineering Chapter at University of Toronto (WISE)



**Total Amount of Funding Awarded: \$7,450**

## Examples of how funding was used:

Funding was used for various costs needed to run the annual conference smoothly, including catering and AV costs. It was also used for other costs such as the conference venue and to support various marketing events for WISE.



## Specific Stories:

One of the biggest ways the funds contributed to WISE through the annual WISE National Conference, which is one of the biggest events that WISE holds each year. The conference serves as a catalyst to inspire and empower individuals to pursue their passions, broaden their horizons, and form meaningful connections. The conference brought together delegates from all across Canada to share ideas and become inspired over the course of a two-day event dedicated to professional and personal growth. More than 50% of the attendees are engineering students, with the majority of them being UofT Engineering students. The conference was held on January 21st and 22nd 2017 and the CPSIF funding has helped in covering venue, marketing, AV and catering costs. The WISE conference helped connect students with industry professionals, who provide great career and professional advice. The conference also had a career fair which featured companies like FDM and TD, which helps connect students to recruiters. The funding has really helped us in furthering our mission to help students reach their professional goals.

The funding has also helped us manage the costs of numerous professional developments events during the year such as the WISE and cheese networking event, that helps connect students to recruiters and helps improve their networking skills.

## Why was this funding important to your club? Please also indicate all sources of funding from the Centralized Process for Student Initiative Fund.

Yes this funding was very helpful and useful to our club. The sources were:

- Skule Alumni Student Club Funding/Dean's Office/ Engineering Alumni Office
- MIE Department
- IBBME
- Chemical Engineering Department
- Civil and Mineral Engineering Department
- Engineering Science Department
- Electrical and Computer Engineering Department



**Did your club engage any alumni (whether as participants, coaches, speakers, volunteers)? Please indicate which alumni, how many alumni, the dates of events and in which capacity they participated (if applicable).**

There were many alumni members in the WISE National Conference and WISE and Cheese Event, please see the breakdown to the right:

**Women in Science and Engineering National Conference January 21-22nd 2017 - University of Toronto - Alumni and Staff Participation**

Name	Last Name	Role	Event
Dean Cristina	Amon	Opening Remarks	Opening Ceremony
Ahmed	Alsohaily	Judge	Case Competition
Narges	Balouchestani Asli	Judge	Case Competition
Amrit	Takher	Moderator	Workshop
Parmita	Chakrabarti	Industry Representative	Career Fair
Jenny	Ng	Speaker	Workshop
Sahil	Saxena	Judge	Case Competition
Professor. Dionne	Aleman	Judge	Case Competition
Dr. Eve	Tsai	Keynote	Keynote Speech
Jessie	MacAlpine	Panelist	Women creating Impact - Panel
Professor Usha	Srinivasan	Panelist	Women creating Impact - Panel
Dr. Adele	Buckley	Speaker	Fireside Chat
Dr. Janet	Rossant	Speaker	Fireside Chat
Miriam	Hird-Younger	Speaker	Fireside Chat

**WISE and Cheese March 15th 2017 - University of Toronto - Alumni Participation**

Name	Last Name	Role	Event
Zaid	Rabb	Industry Representative/ Mentor	WISE and Cheese
Rachel	Chow	Industry Representative/ Mentor	WISE and Cheese
Silvia	Vlad	Industry Representative/ Mentor	WISE and Cheese
Kristina	Boka	Industry Representative/ Mentor	WISE and Cheese
Mariana	Gomez	Industry Representative/ Mentor	WISE and Cheese
Nancy	Longueira	Industry Representative/ Mentor	WISE and Cheese



WISE and Cheese Reception - March 15th 2017



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# World Mining Competition (WMC)

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## Total Amount of Funding Awarded: \$500

### Examples of How the Funding Was Used:

The World Mining Competition is a 3 day conference and case competition that gives undergraduate students the opportunity to work together to solve a real world problem, incorporating industry experience, academics, and ethical decision-making. Students have 48 hours to analyze, solve, and present a problem to a panel of industry experts who are looking for the most feasible and economic solution. The case is academically challenging, focusing on the current issues in the global mining industry. The conference is hosted annually in Saskatoon, SK at the University of Saskatchewan.

Funding was used to subsidize the cost of flights to Saskatoon and registration fees for the event.

### Why was this funding important to your club? Please also indicate all sources of funding from the Centralized Process for Student Initiative Fund:

Networking with the industry members during the competition and receptions provided a unique learning experience and a valuable networking opportunity for the students who attended the conference. As University of Toronto representatives, the four participants were bridging relationships between potential students, industry professionals, and major mining companies. This competition has allowed our students to test out their teamwork, communication, academic knowledge and see how they compare to the rest of the North American participants. As there is a presentation at the end of the case competition, students were exposed to public speaking in front of real world managers and executives, asking the questions that students are normally not exposed to. The ability to experience working with the best of the best and being challenged by industry professionals is memorable and gives our students an advantage when joining the workforce.

This year, unfortunately the team did not place in the top 3, however, their analysis was thorough and the decision between being a finalist or not was very close (~2% of score). This has been a once in a lifetime experience and the students' hard work and good image during the competition will ensure that the University of Toronto continues to be invited to the WMC in the future.

### Did your club engage any alumni (whether as participants, coaches, speakers, volunteers)? Please indicate which alumni, how many alumni, the dates of events and in which capacity they participated (if applicable):

Peter Miszkiel (1T5 + PEY), Daryl Li (1T5 + PEY) and SeungYoung Baek (1T5 + PEY) all competed in the competition last year and were reached out to for a quick briefing on advice and what to expect during the competition.



## 2016 - 2017 Student Clubs Contact Information

Student Club	Contact
American Society of Heating, Refrigerating and Air-Conditioning (ASHRAE)	david.wach@mail.utoronto.ca
Association of Leadership in Chemical Engineering (ALChemE)	shankavi.sivakumaran@mail.utoronto.ca
Biomedical Engineering Student Association (BESA)	stephanie.iwasa@mail.utoronto.ca
Blue Sky Solar Racing	blueskysolar@utoronto.ca
Bridges to Prosperity	captain.b2p@gmail.com
Canadian Society for Chemical Engineering (CSCHE)	kayla.musalem@mail.utoronto.ca
Chemical Engineering Graduate Student's Association (CEGSA)	cegsa.chemeng@utoronto.ca
Civil Engineering Discipline Club	finance@civ.skule.ca
Club for Undergraduate Biomedical Engineering (CUBE)	jiaqi.huang@mail.utoronto.ca
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<b>SuitsU</b>	andrewzn.yang@mail.utoronto.ca
<b>Sustainable Engineers Association</b>	chair@sea.skule.ca



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<b>The University of Toronto Concrete Canoe Team</b>	ut.canoe@gmail.com
<b>Toronto Students for the Advancement of Aerospace (TSAA)</b>	sahan.dealmeida@mail.utoronto.ca
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