



JOY OF GIVING

2019 | 2020

USASK | COLLEGE OF ENGINEERING

DONOR IMPACT
REPORT

Located on Treaty 6 Territory and the
Traditional Homeland of the Metis

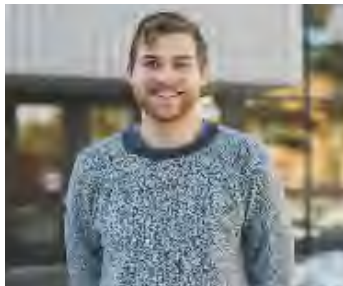


UNIVERSITY OF SASKATCHEWAN
College of Engineering
ENGINEERING.USASK.CA

BE WHAT THE WORLD NEEDS

**"AT ITS HEART ENGINEERING IS ABOUT USING
SCIENCE TO FIND CREATIVE PRACTICAL SOLUTIONS.
IT'S A NOBLE PROFESSION."**

- Queen Elizabeth II



THANK YOU FROM DEAN KRESTA

Your Gifts, Hard at Work



Thanks to you, USask Engineering students are getting opportunities to apply themselves and grow: hands-on practice with up to date equipment that they will see on their first job placements, lessons about their role in workplace safety, and formative experiences in teamwork and problem solving.

We are putting your gifts to work by providing students with the education and experiences that help them become the engineers our world needs. Your support helps us educate students who become stronger team members and more effective leaders.

Your partnership in engineering education is so meaningful to us. You help us fulfill students' dreams, create opportunities for graduates and industry, and ensure our communities have the engineers who are creating a world where we can live modern, sustainable and meaningful lives.

We appreciate being your partner and we are grateful to receive your investment in our shared future.

A handwritten signature in blue ink, which appears to read "Dr. Suzanne Kresta". The signature is fluid and cursive.

Dr. Suzanne Kresta, PhD, P.Eng., FEC
Dean, College of Engineering

**Your support helps us
educate students to
become stronger team
members and more
effective leaders.**

Thank you

You make the difference...

Every dollar donated impacts each of our 2181 engineering students!

\$1,934,900.69
in total donations

Your support enables high-quality instruction, hands-on learning, and opportunities to work with faculty to make critical research discoveries.

Wherever you designate your gift - you make a real difference. Thank you!

Number of Donors

612

Organizational Donors

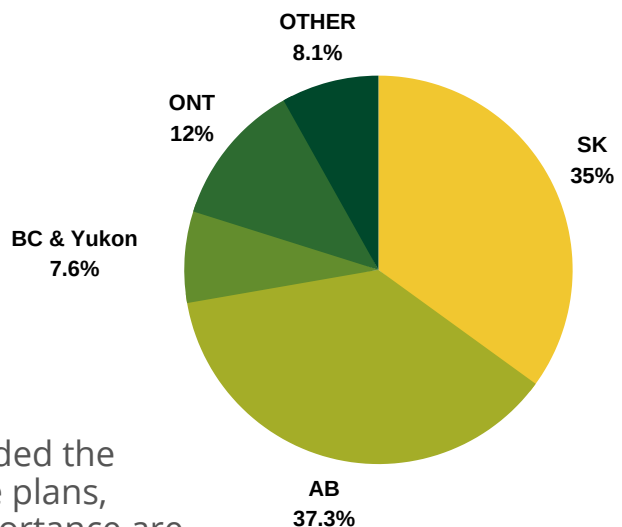
11%

Individual Donors

89%

97% of individual donors are USask alumni

Where our donors live:



The Gift of a Lifetime

A special group of alumni have included the College of Engineering in their estate plans, ensuring their areas of personal importance are supported in their lifetime and beyond.

We are humbled and grateful to carry their personal legacy through our College and within future generations of students and engineers.

\$2,846,255.76

Donations + Spendable
Investment Income

**Your generosity allowed the College
of Engineering to make strategic
investments in four key areas**

3.4%

Facilities

Enhances spaces and equipment used by students, such as our revitalized mechanical labs

17.5%

Research

Enables high-quality research opportunities for students, including industry partnerships

53.9%

Programs

Supports innovations such as the Re-Engineered first year program

25.2%

Awards

Donor funds provide 560 student awards that support and inspire students

UNIVERSITY OF SASKATCHEWAN ENGINEERING STUDENTS FUND

Students and alumni build momentum for transformative fund

Donors to the Annual Campaign for Students helped students in the College of Engineering launch the new University of Saskatchewan Engineering Student Fund (USESF).

This student-led endowment fund is the first of its kind on the USask campus, and will see funding for student activities increase by 500% within 10 years. Priorities will be set by the USESF's student executive, so decisions are made by students and for students to improve student experiences on campus and to meet areas of need.

The creation of USESF will allow engineering students to expand their horizons and host larger events, develop more competitive projects and meet a broader range of student needs, such as enhanced tutoring or networking.

The Class of '79 also showed their support by contributing the remaining balance from their reunion planning fund.

"We decided to donate our reunion surplus so that it would impact future students at the College and create a legacy for the Class of 79" shares reunion volunteer, Cal Sexsmith. "This new initiative meets these objectives as the funds will be directed to where the students see the need and it is an on-going fund rather than a one-time gift."

**"We decided to donate
our reunion surplus to
impact future students at
the College and create a
legacy for the Class of 79"**



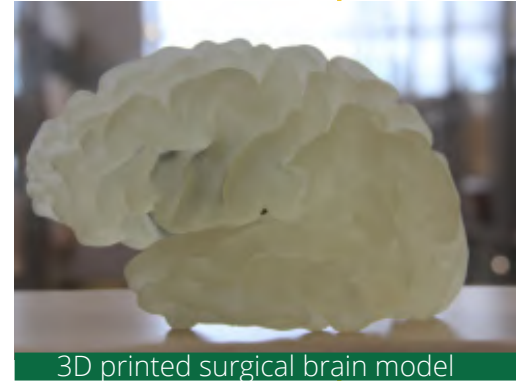
DEAN'S FUND

Your support of the Dean's Fund helped to enable meaningful experiences for students in engineering such as conferences, professional events, student activities and design teams, featured below.

SaskInvent

SaskInvent brings together engineering expertise and modern prototyping technology to explore the world of biotechnology and medical device design. We collaborate with the Veterinary College and the Department of Medicine on projects to their medically focused problems.

Your donation to the Deans Fund helped us access to better materials and tools to empowers SaskInvent members to leverage impact on these issues, helping us deliver more biotechnology solutions than ever before. Thank you for allowing us to continue in our mission to make healthcare devices and treatments more accessible.



3D printed surgical brain model

Quarter Scale Sled Dogs

With the help of your gift, we were able to design an electronically actuated Continuously Variable Transmission (CVT) for the 2020 tractor. By continuing to refine this electric controlled CVT, we hope to one day have an automatic pulling mode integrated on the tractor.

Design teams like ours are an essential part of the college of engineering experience. We learn invaluable teamwork skills, engineering design and manufacturing processes and network with other students, industry professionals and employers. Because of the great success of the team, there are multiple employers who actively reach out to members of the team and want to hire us.



Quarter scale tractor

University of Saskatchewan Space Team (USST)

The USST is hard at work on the RADSAT-SK cube satellite project to ensure Saskatchewan's first home-grown satellite reaches orbit for the anticipated 2022 launch date. As the only 100% student-designed satellite in Canada, the team has enjoyed a number of successes this year, including receiving Saskatoon's Regional Economic Development Authority's outstanding initiative award in Science, Technology, Innovation and Collaboration.

Donations like yours to the College of Engineering Dean's Fund has immensely helped the team with the purchasing of components for the satellite, as well as materials and test equipment for the RADSAT-SK Clean Room. Thank you to all who helped make this formative experience possible!



USST members receive SREDA Outstanding Initiative award



EXPERIENTIAL LEARNING FUND

Embeds social values and leadership in undergraduate experiential learning

As Rod Karius (BE 1976, Civil) approached retirement, he felt it was the right time to give back to where it all started. "As my career progressed, and I was able to reflect on my time and career, it all came back to my engineering degree. I owe a lot of gratitude to the university for my rewarding career."

As a long-time alumni volunteer, Rod had many sources of inspiration to consider how he could give back to the college. "It comes down to values; for me that was a part of my upbringing. I believe in being a part of your community, being involved, participating, and giving if you can. If you give back, you will receive so much more in return. There's a sense of well-being from giving back."

Rod created the Engineering Undergraduate Experiential Learning Fund, supporting student groups with an idea to learn in a self-driven, socially impactful project. In the fund's inaugural year, one fourth-year electrical engineering capstone design group truly inspired.

"The scope of our senior design project was to design sustainable power for an elementary school and medical clinic, focused on treating pregnant women with HIV in Bujumbura Burundi Africa" shares Landry Warnez, 4th year electrical engineering student and capstone team member.

"Our capstone designed sustainable power for an elementary school and medical clinic that treats pregnant women with HIV in Bujumbura Burundi Africa.

As quality of education and healthcare are primary drivers for lifting a nation out of poverty, we felt this project was worth pursuing to improve current conditions at the school and medical clinic to support a better future for Burundi."

As quality of education and healthcare are primary drivers for lifting a nation out of poverty, we felt this project was worth pursuing to improve conditions at the school and medical clinic to support a better future for Burundi.

We had identified solar power as the most suitable renewable energy source but ran into problems communicating with our stakeholders to design the most suitable solution," Warnez says. "It is difficult to fully understand the problem without getting eyes on the existing infrastructure and a feel for the local environment. It was at this point we decided a trip to Bujumbura was necessary."

That trip was made possible by the Engineering Undergraduate Experiential Learning Fund and was integral to the project. "I gathered the necessary information to design solar power systems for the school and medical clinic, and provided easy to implement corrective actions to eliminate safety risks associated with exposed electrics. We plan to continue with the project after graduation securing the necessary funding and implementing our design".

"As engineers it's easy to come up with a solution and then go looking for the problem it solves, but it's important to look at the social impact" reflects Rod. "We can't be disruptors as we implement innovative solutions...students need to be socially inquisitive. I hoped that the Experiential Learning Fund for Students would help students learn the social side of engineering to allow students to appreciate the social and technical side of what they do."

FAMILY GIVING AT ITS FINEST

Monica and Tyler Majcher Provide Meaningful Upgrade to Mechanical Lab



Mechanical alumni may recall their upper year labs, learning about flow networks and heat exchangers, calculating dynamic response of a beam to an impact load, or being in a large group of students writing numbers and doing calculations in their logbooks. After roughly 30 years, the ME lab program is being re-imagined, starting with the third-year course.

Relying heavily on a few large pieces of equipment, lab scheduling became problematic and was exposed to the risk of a single point of failure. "The lab program was a bottleneck with data acquisition and capacity limits," shares faculty member Scott Noble, who spearheaded the Mech Lab Revitalization Project. "We needed to find a way to provide a better learning experience for the students."

As USask engineering alumni, Monica and Tyler wanted to support the College in a meaningful way. "We recognized the role the U of S played in our lives. We both felt strongly about engineering because of the opportunities it provided to us."

The Majchers' gift supported the purchase of two of the six new work stations in the mechanical lab introduced in the winter 2020 term.

This enhancement allowed students to work in small groups providing more hands on technical experiences in the lab and creating a better opportunity for skill development.

Having multiple work stations improved the continuity of labs, enhancing each students' understanding of content by providing greater exposure to instrumentation and computing for measurement and analysis.

"It's important for students, labs are a huge part of their learning" said Monica.

"Students experiment in a self-directed manner and are spending more time 'playing'. They are developing different ways of thinking because of the upgrades"

"These new units have been a game changer" says Noble. "Now students are not running out of time to complete because of having to share on large piece of equipment. Students can experiment in a self-directed manner and are spending more time looking at the sample and 'playing'. Students are developing different ways of thinking because of the upgrades".

"When you see what students are able to do, the impact of the upgrades hits home" shared Tyler. "This is all relatable on a fundamental level to what I do. It's basic mechanical engineering and allows you to work through other areas."

GRANT MCCARTHY MEMORIAL AWARD

Honouring a legacy
through meaningful
student award support

In 2019, fourth-year mechanical student Morgan Button was the inaugural recipient of the Grant McCarthy Memorial Award.

This new award, created in memory of alumnus Grant McCarthy (BE 1959), has very unique criteria: to be awarded to the mechanical engineering student who makes the greatest improvement in their academic standing.

"Just before Grant passed away, he said he would like for me to make a donation to the university. He didn't say how, and I thought it should go to someone who wasn't top of the class," explains Grant's wife Sheila.

"Grant always talked about how he had to work his way up in class. I'm hoping that for students it will be a chance for them to continue on with their education and help them financially."

In thanking Sheila McCarthy for creating the award, recipient Morgan Button said it meant a lot to have his hard work acknowledged.

"You have my thanks for your generosity in recognizing students who have overcome academic missteps." says Button. "It can be a hard slog back to a point where one feels a sense of accomplishment academically".



"It's encouraging to know that there are community members that recognize this.

When I found out I had received this award I was elated; not just to be recognized for my academic improvement but because I will be able to finish my degree without the need for additional income or support from family.

Thank you for your generosity in helping students through what can be the most stressful years of our lives. Especially after we've overstretched ourselves in whatever way, shape, or form that caused us to stumble academically and come back."

**"Thank you for your
generosity in helping
students through what can
be the most stressful years
of our lives."**



Alumni led campaign builds community & provides opportunity for students

In 1978 Dean Peter Nikiforuk, launched the College of Engineering's first Canada-wide fundraising drive to ensure the newly renovated building was equipped with industry-ready equipment and technology for students. Many alumni recall Dean Nik visiting their graduating classes, urging them to continue the tradition of giving back.

These graduates answered the call and a new movement of grass roots alumni philanthropy was born. By 1986, the drive had formally evolved into the Engineering Advancement Trust, commonly known as the E.A.T.

In over 30 years, alumni have donated more than \$3.5 million to provide innovative and up-to-date programming and facilities for students.

Throughout the College of Engineering, red footprints provide a tour of equipment used by students today, purchased with gifts made to the EAT. The footprints represent the steps that alumni like you are taking to improve the future of engineering education and offer a path for our students to follow to become exceptional USask alumni and engineers.

"The Engineering Advancement Trust helps keep USask at the forefront of engineering education.

This alumni community and their shared dedication to supporting students keeps our campus and legacy as exceptional engineers strong. We are so grateful."

- Dean Suzanne Kresta

Today, the Engineering Advancement Trust is led by alumni volunteers who build connections with philanthropic alumni to continue the legacy of giving back. Through gifts of time, talent and treasure, the EAT propels the College of Engineering to new heights of innovation and excellence, offering enhanced opportunities for student learning.

Recently, the Engineering Advancement Trust supported a transformative initiative - an entirely "Re-Engineered" first year program.

You might recall your first year welcome, the infamous, "Look to your left, look to your right. Only one of you will be here next year." Thanks to EAT donors, we plan to change this welcome to "Look to your left, look to your right. These are the people who will help you earn your degree".

Thanks to EAT donors, our new 1st year welcome will become
"Look to your left, look to your right - these are the people who will help you earn your degree."

This new welcome reflects the Engineering Advancement Trust's legacy of community building, fostering connections between alumni, students, and the College.

This year, the EAT deepened their commitment to supporting students more directly to provide meaningful opportunities for alumni and students to connect.

BE WHAT THE WORLD NEEDS

CONNECT WITH US
ENGINEERING, EXTERNAL RELATIONS
57 CAMPUS DRIVE, SASKATOON, SK, S7N 5A9 (306) 966-2633

COE.INQUIRIES@USASK.CA
ENGINEERING.USASK.CA
#ENGINEERTHEWORLDNEEDS



UNIVERSITY OF SASKATCHEWAN

College of Engineering

ENGINEERING.USASK.CA