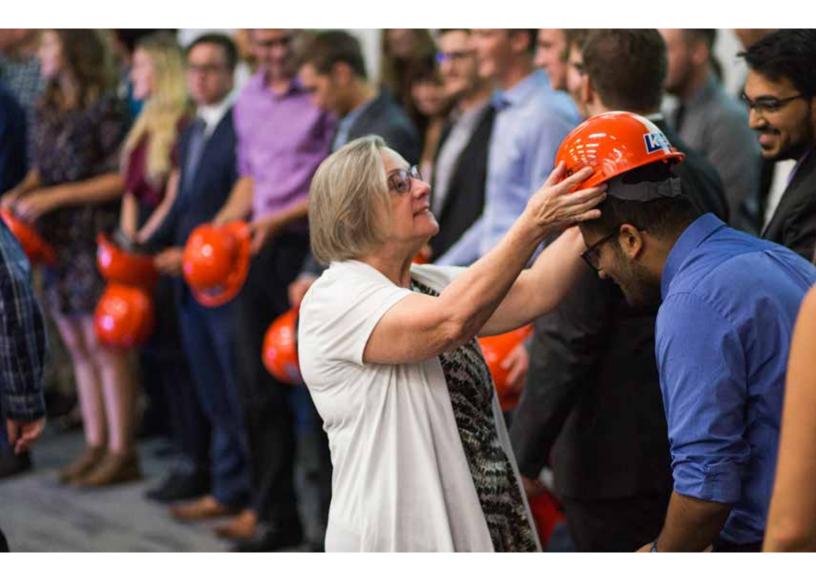
### 2018 2019 Report to Donors Engineering Advancement Trust





university of saskatchewan College of Engineering engineering.usask.ca

# You're helping us unlock new achievements

## Donations from you, our alumni and friends, to the Engineering Advancement Trust are a key part of student success at the USask College of Engineering.

Your generosity allows us to meaningfully enhance the education of our students. This is a precious gift to the college, our students, and the future of engineering in Saskatchewan and beyond. Your decision to entrust us with your gift ensures that the University of Saskatchewan College of Engineering will stay at the forefront of engineering education, industry and research for years to come.

#### We sincerely thank you for your support.

**On the cover**: EAT Board Chair Margaret Kuzyk participates in the college's annual Hard Hat Ceremony, where 2nd-year students are welcomed to their disiplines

Huskie Formula Racing team members disassembling rotors and uprights in the Hardy Lab

# How alumni created the Engineering Advancement Trust

The story behind a movement of dedicated alumni



In 1978, the College of Engineering, led by Dean Peter Nikiforuk, launched its first Canada-wide fundraising drive to ensure the newly renovated college was equipped with industry-ready equipment and technology for future students. Many alumni remember Dean Nikiforuk personally visiting their graduating classes, urging them to continue the tradition of giving back. Our graduates answered the call and the movement to develop the Engineering Advancement Trust (EAT) was born.

Following the completion of the college's fundraising drive, the graduating class of 1982 launched its own campaign: the Engineering Equipment Advancement Fund. By 1986, the fund had officially evolved into the Engineering Advancement Trust.

In a little over 30 years, the EAT has donated more than \$3.5 million. Hundreds of contributing alumni ensure the college provides 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.

Thanks to your dedication and generosity, thousands of students are impacted and can continue to better our community – locally and globally. You are helping to create engineers the world needs.



## 2018/2019 Board of Trustees

Ian Campbell | BE '80 CE Steve Heidt | BE '90 EE Blair Hockley | BE '96 ME Lowell Jackson | BE'73 ME Rod Karius | BE'76 CE Margaret Kuzyk | BE'83 CE

Lesley McGilp | BE'99 ME Russ Renneberg | BE'76 CE Myron Stadnyk | BE'85 ME

Trutees Ian Campbell, Steve Heidt and Margaret Kuzyk have completed their terms as EAT trustees. We sincerely thank each of them for their service, which has positively impacted our students, alumni and college community.



# Thank you for continuing our legacy of alumni who give back

The EAT is driven by alumni like you who share our vision of providing the very best education to the next generation of USask engineers.



Margaret Kuzyk (BE '83), P.Eng. 2017–2019 Engineering Advancement Trust Chair

I joined the EAT board because I believe it is important to give back by strengthening the future of engineering. It has been an honour to serve my engineering alumni community and my pleasure to work with the enthusiastic leaders and staff in the college.

"The dedication of donors to these future engineers, through good times and bad, has been inspiring to me."



As the college faces new growth and demanding, yet still exciting challenges ahead, it is essential for us, as alumni, to continue to be a major partner in supporting undergraduate engineering programs and initiatives.

# Thank you from the dean



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

Since becoming dean of the University of Saskatchewan College of Engineering, I've come to love how much our college values tradition and its sense of community. I've also learned just how much the Engineering Advancement Trust contributes to both our community and our students.

With its 33-year history, EAT is a valued institution within our college. It exists because dedicated alumni provide guidance and expertise through the EAT Board of Trustees. My personal thanks to our 2018-2019 trustees for their service.

# *"We are grateful for each donation and are humbled by your commitment to the college."*

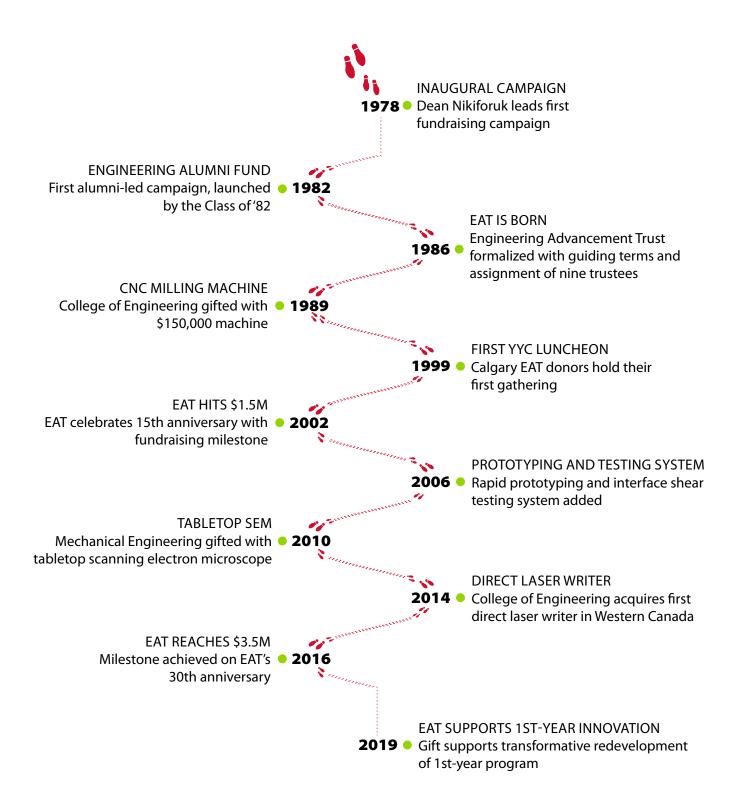
To you, the alumni who support EAT, who carry on the tradition of giving back to USask Engineering – we are grateful for each donation and are humbled by your commitment to the college and the trust you place in our leaders.

This is a pivotal time for us. We continue to build the case for a new Engineering Building and have started redesigning our 1st-year program to make it more effective and impactful for students. EAT is helping to ensure we will achieve our vision.

Whether you are a recent grad who has just made your first donation to EAT, or a seasoned P.Eng. who supports us year after year – thank you for giving back. Your desire to remain connected and invested in our college speaks to who we are at the University of Saskatchewan.

## EAT: the pathway of continuous innovation

Your generosity is creating a pathway to a better-equipped college and enriched student learning. Follow the red trail and see key dates in EAT's history.



# EAT supports 1st-Year Redesign

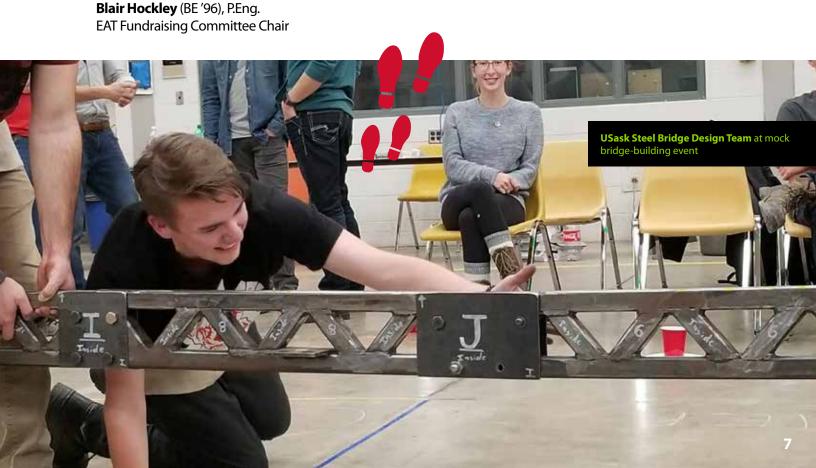


"The college and faculty, in their continued commitment to deliver the highest quality engineering program, are embarking on an overall redesign of the 1st year. By employing the latest content delivery and continuous assessment techniques, the new 1st year will be the only one of its kind in the country. It will set the standard for engineering education across Canada and the globe. The EAT board has agreed to support this groundbreaking initiative. As alumni, we play a significant role in ensuring the continued success of USask engineers. It is my privilege to work with the EAT and many generous alumni who keep our tradition alive."



"The 1st-Year Redesign will ensure that all new students are positioned for academic success. The changes in programming will account for different academic backgrounds and starting points and offer a more personalized approach to learning and performancebased advancement. The 1st-Year Redesign will introduce increased classroom time, enhanced peerto-peer learning and strengthened course modules. These will enable better understanding of foundational theories and improved performance of elementary training."

**Dr. Bruce Sparling,** PhD, P.Eng., FCSSE Associate Dean Academic



# College aims to create most effective 1st-year engineering program in Canada

### Newly designed 1st-year curriculum provides a holistic foundation of the engineering field

Every engineering student must choose a discipline at the end of their 1st year. However, current students may lack the broad, hands-on experience needed to make a truly well-informed decision about their future.

There is an urgent need to reimagine a student's educational journey, in our college and beyond. We are scheduled to launch our new 1st-year program in fall 2021, integrating hands-on engineering experience, relational skills and a broad sociocultural understanding.

Over their 1st year, engineering students will gain perspective about where they want to spend the next three to four years of their university careers, with dedicated class time in each discipline. This reduces the guesswork about choosing a discipline, which weighs heavily on students in year one.

In addition to building a foundation of necessary technical and theoretical skills, 1st-year students will also acquire interpersonal and cultural awareness. The curriculum will be highly adaptive and coordinate across colleges to facilitate just-in-time learning, preparing students for a rapidly changing world.

## CURRICULUM DEVELOPMENT: \$280,000

- Course materials: online materials, assignments and assessments
- Open text (free resource material) development
- Implementation of automated
- assessment technology





# *Virtual reality: at the forefront of engineering education*

Relating 3D objects to 2D drawings is a challenging task for fledgling engineers

Engineers face diverse working environments, resulting in wild deviations between on-paper theory and actual field applications. Fortunately, students now have the opportunity to test their calculations in a virtual environment.

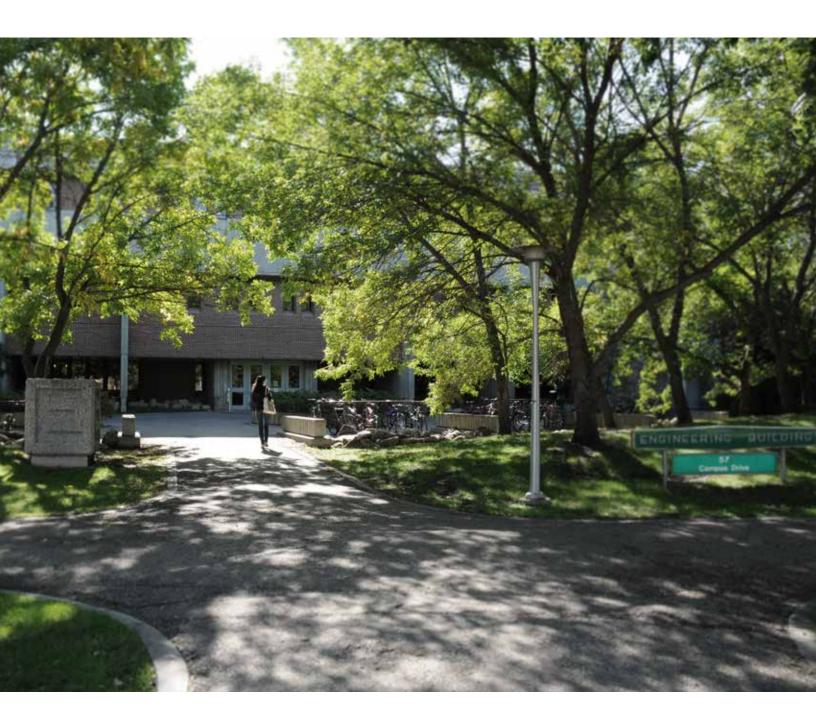
The introduction of virtual reality is a key component of the College of Engineering's 1st-Year Redesign. It will help bridge the gap between theory and hands-on experience early in an engineering student's academic journey.

### VIRTUAL REALITY GRAPHICS AND VISUALIZATION SOFTWARE DEVELOPMENT: \$100,000

Software development in partnership with local developer Sprockety

Engineering professor Sean Maw uses the new virtual learning software in the ViRTCL Lab





#### **CONNECT WITH US**

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