

SCHULICH SCHOOL OF ENGINEERING

Energizing Engineering Leadership

STRATEGIC PLAN 2015-2020



SCHULICH
School of Engineering

**Thinker
Creator
Designer
Innovator
Entrepreneur
Communicator
Team Player
Leader**

“Engineers are society’s builders and innovators. They play a vital role in creating the infrastructure and services that support the standard of living we enjoy in our modern society.”

Seymour Schulich

MESSAGE FROM THE DEAN

The role of an engineer is to find novel solutions to pressing technical challenges and to improve quality of life both locally and globally. The Schulich School of Engineering is committed to making a difference in the education of our undergraduate and post-graduate students, in the diversity of our profession, and through the impact of our research.

We want to establish a learning environment where creative thinking, innovation and teamwork thrive and help our students, faculty and staff continue this legacy of outstanding engineering by reaching their potential.

Over the next five years, our leadership will maintain focus on supporting student success through their studies, their research and into their future careers. Our vision will be demonstrated through our commitment to increased diversity within our school and profession by fostering an inclusive environment, and it will showcase our abilities through research that solves the real challenges facing our world.

By energizing engineering leadership, we at the Schulich School of Engineering are bringing together the wealth of skills and talents that abound across our school, our university and our community to make a difference.

Bill Rosehart, P.Eng, PhD
Dean and Professor
Schulich School of Engineering

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Vision, Values and Mission

Vision As a community defined by energy, enterprise and excellence – both on our campus and in the city of Calgary – we will become the Canadian school of engineering recognized for our student success, our celebration of diversity and our leadership in research that makes a difference.

Values Collaboration • Creativity • Kindness

Mission By embracing emerging approaches to educating future engineering leaders and through pivotal research findings, the Schulich School of Engineering will make a significant positive impact in discovering solutions to the complex problems facing our planet and society.

HOW WE GOT HERE

Building on the University of Calgary's *Eyes High* strategic direction, we at the Schulich School of Engineering began to define our own vision and goals. Using the work documented in the university's Academic and Strategic Research Plans, and in our own tactical plans, we consulted with many groups through steering committee discussions, departmental presentations, faculty council deliberations and meetings with faculty, staff and students. Inspired by the thoughts, ideas and innovations of our entire school, together we built our plan.

THE WAY FORWARD

We will concentrate our energies on three main areas to become one of Canada's top engineering schools. At the Schulich School we are:

- **Committed to student success**
- **Fostering diversity**
- **Research that makes a difference**



Committed to Student Success

From their first class to graduation day and throughout their careers, the Schulich School of Engineering is dedicated to nurturing our students' success. Our focus is on ensuring students have rich learning experiences – both inside and outside the classroom – that prepare them to be engineering leaders and to act as a bridge to the dynamic engineering community in Calgary, Canada and beyond.





OUR GOALS

Supporting students

To recruit, teach and graduate engineers who will become their best, we must meet the needs of each individual student. Embracing a culture of supporting students means personalized academic plans and new learning pathways, scholarships celebrating academic merit and addressing financial need, and reaching out to all students to help them find their way.

Teaching and learning excellence

To meet the unique learning needs of our students, we will become a national leader in engineering education. We will work in partnership with the Taylor Institute for Teaching and Learning to investigate new approaches for improving teaching effectiveness. Our blending of customized learning spaces, the latest technology and innovative faculty development will inspire students and educators alike to fulfill their academic potential.

Real-world student experience

Located in the engineering capital of Canada, we will continue to welcome Calgary's vibrant engineering community into our classrooms, and to take our students out to experience industry first-hand, providing valuable career perspectives. We will expose our students to a vigorous research environment, and foster leadership skills through engaging co-curricular activities, entrepreneurship opportunities, interdisciplinary teamwork and international experience. We will prepare our students to be skilled professionals ready for employment, to be leaders in engineering and to be engaged citizens.

We want every incoming student at the Schulich School of Engineering to complete their degree and embark on a career where they can make a difference.



A black and white portrait of Noor Amjad, a young woman with long dark hair, smiling. She is wearing a dark button-down shirt and a light-colored patterned scarf. The background is a plain, light-colored wall.

NOOR AMJAD

At 20 years old, Noor Amjad travelled halfway around the globe to attend the Schulich School of Engineering. Originally from Lahore, Pakistan, Noor is a natural team player who loves how multicultural her undergraduate classes are. There are so many different cultures working together, so many different languages communicated, and every person she meets has a whole new story to share. When participating in an engaging engineering class, when encouraging young women to consider a future in engineering or when taking pictures of the foods, experiences and weather of her new city, Noor knows she made the right decision coming to Calgary. Noor's friends frequently ask her when she's coming back home. She loves asking them, "when are you coming over here?"

Fostering Diversity

Engineering at its core is a call to serve humanity. It is a meaningful pursuit for dreamers, problem-solvers and future leaders. For this creative field to thrive, we need to cultivate an environment where people with a variety of backgrounds, genders, interests and talents feel welcome and included. At the Schulich School of Engineering, we will strive to ensure everyone feels at home.





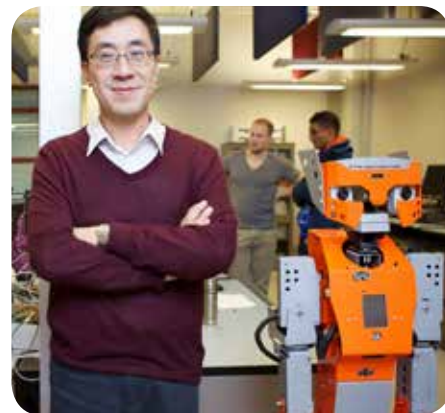
OUR GOALS

Including all

Embracing diversity will transform the landscape of engineering. It begins by modifying our recruitment practices to better include the skills and talents of all of our applicants. Diversity will be enriched with an advanced approach to educating engineers through new and emerging curriculum. Diversity will be encouraged by demonstrating to future engineers fulfilling careers that engage and affirm each person.

Promoting health and wellness for everyone

We will support the creation of a campus ethos driven by intellect, ability, energy and commitment in a healthy, respectful environment with opportunity for all.



We will strive for a student and faculty composition that reflects the demographics, backgrounds, talents and rich diversity of our community.



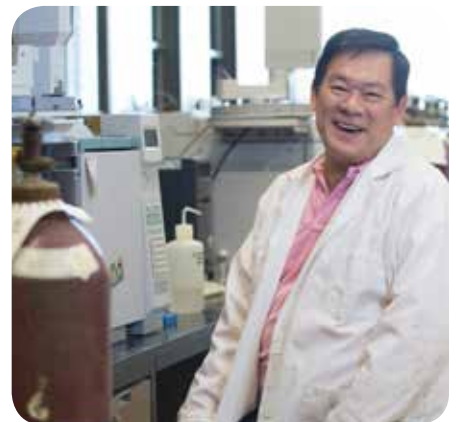


LUKE GAGNON

At 8-years-old, Luke started making music. He hasn't looked back since. A member of the Schulich Soundstage, he is frequently found playing piano, clarinet and saxophone with other musical engineering students. He spent a summer as an undergraduate student conducting research on wastewater treatment. Luke also likes helping people and volunteers at the Foothills Medical Centre emergency room. Like Luke, the Schulich School of Engineering embraces the full spectrum of skills, talents and ideas – from the academic to the artistic. We will work to engage the whole person and support the development of future engineering leaders.

Research That Makes A Difference

Engineers possess the vision and the knowledge needed to improve the world around them. At the school we will promote research that has a real, measurable and lasting impact on the lives of people living down the street or around the world. Through broad partnerships with our community, our researchers will work together to find meaningful solutions to local and global challenges. As world-leading researchers, they will also expand the pursuit of knowledge and understanding, they will effectively communicate their findings and they will demonstrate the best of what engineers can be.





OUR GOALS

Leading research

We will be amongst the research leaders in Canada's engineering schools. We will increase our focus on the impact of our discoveries, on measuring our research successes and on increasing our international leadership.

Working in teams

We will distinguish ourselves by creating collaborative and productive teams composed of faculty, staff, students and industry who will work on large projects to meet the grand challenges of our time.

Improving lives

We will transform the ideas generated by engineering research into practical and powerful improvements in people's lives. We will share our discoveries and insights through technology transfer, patent development and application, and involvement in local and global engineering practice. We will expand knowledge and understanding, propelling the profession forward.

We will focus our research endeavours on answering a number of society's biggest questions and on improving the human experience.



A black and white photograph of Steven Bryant, a man with glasses, wearing a bicycle helmet and a jacket, smiling while sitting on a mountain bike. The background consists of out-of-focus evergreen trees. Two thin, curved lines, one orange and one yellow, are visible at the top of the page.

STEVEN BRYANT

A world-leading nano researcher, Steven Bryant is an innovator working to dramatically change how the oilsands are developed. Bryant holds the Canada Excellence Research Chair (CERC) in Materials Engineering for Unconventional Oil Reservoirs and works collaboratively with researchers across the university to find new ways to increase the efficiency of in-situ oilsands development. His focus is on using new techniques like nanotechnology to meet the world's growing energy needs in a more environmentally friendly way.

Going Forward

We are committed, at every level, to the success of our students, to enrich diversity within the school and the engineering profession, and to combine our strengths to produce research that makes a difference. We will go forward energized, knowing we are making a difference in the lives around us, answering the call to serve humanity.

“Be the change that you wish to see in the world.”

Mahatma Gandhi





DR. ROBERT THIRSK

A former Canadian astronaut, proud alumnus and the University of Calgary's 13th Chancellor, Dr. Thirsk is a leader in promoting research and education. After graduating with a mechanical engineering degree in 1976, Dr. Thirsk spent more time in orbit than any other Canadian. He researched the effects of space travel on the nervous system and founded Tomatosphere — a program that sends seeds into space and then provides them to schools to use in experiments. A recipient of the Order of Canada, Thirsk is a tireless advocate for post-secondary education. He inspires young minds to think about the possibilities education brings both on Earth and above it.



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