



ENGINEERING CHANGE

Quarterly update highlighting the School of Engineering's signature projects and achievements during the past four months.

Like the rest of the world, the School of Engineering (SOE) at the University of British Columbia's (UBC) Okanagan campus is adapting to the many challenges brought on by COVID-19. In less than a week in early March, the SOE transitioned to online teaching and curtailed all research as per guidance from public health authorities.

Engineers are known for their resiliency and desire to make the world around them better. That is what the SOE's students, faculty, staff, and administration have done during these difficult times. They have supported one another, and their community, while striving to maintain as much normalcy as possible. It hasn't been easy, but every member of the SOE community has stepped up and done their part.

Online teaching led to online exams where students signed integrity pledges that mirrored the ethical standards that they will adhere to once they become professional engineers.

Some limited research is continuing during the curtailment in instances where the sustainability and safety of critical research resources and data would be difficult to replace. In those circumstances, physical distancing and additional protocols are being followed. UBC priorities with respect to research are:

- Ensuring the health and safety of our local and broader community
- Ensuring the sustainability and safety of critical research resources, data and reagents
- Assisting researchers in maintaining or obtaining research funding to cover staff salaries and other priorities

Additional COVID-19 related research is also being conducted related to face-shields, ventilators and personal protective equipment (PPE). Many

of these initiatives are collaborations developed through the UBC Okanagan Taskforce on Infectious Disease and Pandemic Planning (IDAPP).

The SOE continues to take a leading role in supporting its community and partners during COVID-19.

Visit engineering.ok.ubc.ca for program details & collaborative research opportunities

SCHOOL OF ENGINEERING LEADERSHIP TEAM

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UBC Engineering - Okanagan (Group)



THE UNIVERSITY OF BRITISH COLUMBIA

School of Engineering

Faculty of Applied Science
Okanagan Campus



UBCO teams up with the community to design medical PPE

The School of Engineering and makerspaceUBCO—an interdisciplinary design and fabrication lab—have partnered with the Okanagan Regional Library and the Interior Health Authority (IHA) to design and produce 3D printed, medical-grade face shields for front-line health care workers.



New IRC aims to innovate municipal wastewater treatment

Professor Cigdem Eskicioglu named the Senior Industrial Research Chair (IRC) in advanced resource recovery from wastewater. The role, awarded in partnership with NSERC and Metro Vancouver, will focus on extracting energy and resources through wastewater sludge treatment technologies.



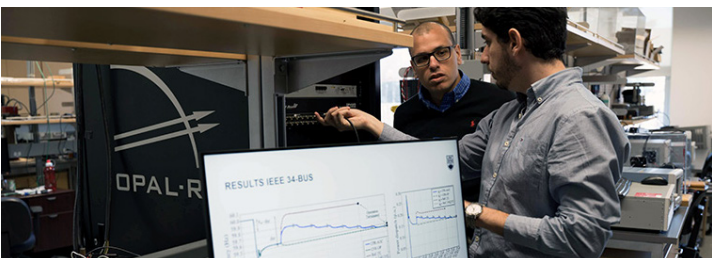
Researching the impact of COVID-19 on travel restrictions

The COVID-19 outbreak has impacted everyone in Canada and around the world. The Centre for Transportation and Land Use, led by Assistant Professor Mahmudur Fatmi, is collecting data about people's travel habits as they are being asked to stay at home and maintain social distancing.



Two student teams qualify for AquaHacking Challenge finals

Students teams from APSC 169 submitted a number of proposals to the online competition hosted by the Okanagan Basin Water Board and Aqua Forum that sought solutions to B.C.'s greatest water challenges. The two teams are among the final five who will compete in mid-June for \$50,000 in seed funding.



Redesigning how electricity is distributed within power grids

With the goal of eliminating brownouts and blackouts, new research is developing methods to incorporate multiple microgrids—separate grids operating like individual islands that can disconnect from the main power supply and run independently. The research is supported by NSERC and several agencies in Brazil.



Lecturer earns prestigious award

School of Engineering lecturer Mohammad Tiznobaik has been recognized with the American Concrete Institute's (ACI) Wason Medal for Materials Research Award. The Medal is awarded to the best original, peer-reviewed research in the area of concrete materials and their use.

For the latest information related to COVID-19 and the School of Engineering visit engineering.ok.ubc.ca/covid-19/. For UBC-wide updates, FAQs and resources, visit ubc.ca. For UBC Okanagan-specific updates, visit ok.ubc.ca/covid19.