

Barrett Centre for Technology Innovation

NEWSLETTER

Year in review from Barrett CTI director

As we close out 2021, I want to give thanks to my Barrett CTI team who worked hard to keep the Barrett CTI building in operation as well as managing the many projects that took place throughout the year. We had great success in Skills competitions at the provincial, national and international levels, winning three medals in total. We also reached more than 3,500 middle and high school students through our STEAM virtual workshops. Thanks to our Advanced Manufacturing Skills Consortium partners, we were able to offer professional development workshops for faculty and staff in many disciplines. The Barrett CTI is a place where ideas come to life, where people connect and collaborate with each other, where students can realize their potential and where careers are born. We continue to host exciting applied research projects in the building: ATSC 3.0 (read more about it in this newsletter) and the Internet of Things, which you will hear more about in the new year. This is just the beginning of our journey, and I am excited about what's in store for us in 2022 and beyond.


Have a wonderful and relaxing holiday season!

Neal Mohammed

Director, Barrett Centre for Technology Innovation



HIGHLIGHTS FOR 2021

<p>Applied Research & Capstone Projects</p> <p>33 projects 355 student participants</p>	 	<p>Professional Development Workshops</p> <p>10 Workshops & activities for faculty & staff. Topics included: CP Factory training, 5-Axis CNC Machining and 3D Scanning.</p>
<p>Skills Varsity Competitions</p> <p>13 students from FAST and FMCA competed in nine competitions, receiving medals in Mechanical CAD, Electronics, Coding, Welding and Mechatronics at Skills Ontario.</p> <p>Marko and Nick won gold in Mechatronics at Skills Ontario and Skills Canada.</p>	 	<p>STEAM Outreach</p> <p>3,578 middle and high school students were engaged through virtual workshops.</p>

Page 2

- Humber College Wins Fourth Place on the Skills World Stage
- Leading the Way: Humber's B²C Lab is the first of its kind in North America



Humber College Wins Fourth Place on the Skills World Stage

Humber Electromechanical Engineering Technology students Marko Gunja and Nickolas de Boer placed 4th overall at the 2021 “Skill Challenge Mechatronics” competition! This four day event which took place from November 22 to 25 and involved 24 teams competing from 18 different countries. We want to acknowledge Humber’s Skills Coach, Mateusz Cwalinski, a former WorldSkills competitor and current Humber student, for his coaching and leadership. As a special acknowledgment, Chief Expert Michael Linn from Festo Didactic called Team Canada “Innovative” for their ability to demonstrate how the simulated equipment was interacting with the physical Human Machine Interface. A big thanks to Festo Didactic, a member of Humber’s Advanced Manufacturing Skills Consortium, for their ongoing support of Humber’s Mechatronics Skills team. The team will continue to train for the 46th WorldSkills Competition in Shanghai, China in October 2022.

[READ MORE](#)

WISHING YOU A HAPPY
HOLIDAY & A JOYFUL
NEW YEAR!

Leading the way: Humber’s B²C Lab is the first of its kind in North America

At Humber College, we pride ourselves on being leaders in all we do, including pushing the boundaries of technology, innovation and creativity. And we will push them even further in 2022. The Humber Broadband Convergence B²C Lab, housed at the Barrett Centre for Technology Innovation, is the first of its kind in North America. Phase one of the lab is now operational and will be ready for students, faculty and industry to begin to research and harness the possibilities of ATSC 3.0 technology in early 2022. ATSC 3.0 is the next-generation global television broadcast standard set to replace the current standard (ATSC 1.0) in North America. The broadcast system runs on an Internet Protocol (IP) backbone that can work with other data delivery standards like Wi-Fi and 5G. In essence, ATSC 3.0 brings a new internet delivery network to the world! Humber College was awarded a joint [NSERC/CFI College Industry Innovation Fund](#) grant valued at \$4.5 million supporting lab infrastructure and growth of applied research capacity. The aim is to foster partnerships between Humber and the private sector leading to business innovation at local, regional and national levels.



The B²C Lab supports multidisciplinary research and will hire approximately 150 students over the next five years from a variety of programs and faculties at Humber. Working as student researchers alongside faculty and industry partners, students will be at the centre of leading-edge research in the B²C Lab. They will be involved in developing, testing and deploying solutions supporting the adoption of ATSC 3.0 in Canada. A formal launch of the lab will take place in 2022.

[READ MORE AT HUMBER PRESIDENT CHRIS WHITAKER’S BLOG](#)