



HUMBER

Faculty of Applied Sciences & Technology

# FAST TIMES

APRIL 2023

Dear Colleagues,

Our grey landscape is transforming with spring bulbs and solar panels blooming throughout North Campus.

Have you noticed this unique floral structure? Inspired by the sunflower, The Smartflower is part of the new Sustainable MicroGrid and Renewable Technology (SMART) Lab that recently celebrated its grand opening. This is an innovative new Living Lab that provides an educational and experimental environment to train students and professionals on the use of a microgrid system which reliably manages the generation, storage and consumption of energy.

This is an exciting time in the Advanced Manufacturing cluster as the sound of humming robots fill North Campus!

Humber College hosted more than 400 high school students for the *FIRST* Robotics Competition as they put their homemade robots to the test in a series of specially designed challenges. Organized by the Humber Community Outreach and Workforce Development team, it was a fun weekend where students flexed their engineering, coding and design skills.

[Continue reading on next page.](#)

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And while this competition has wrapped up, the sounds of engines whirring continue with the addition of a new Advanced Robotics Course led by Program Coordinator Lars Kristjansen and Professor Mehrdad Iravani Tabrizipour. Students will learn basic principles of robot navigation systems including perception, error propagation, localization, and path planning.

We have many more compelling stories that I look forward to you discovering in this issue including a profile on Welding Techniques program coordinator Colin Wildman in “People of Carrier Drive.”

As we welcome spring, I hope you will take the time to enjoy a walk through the Humber Arboretum and North Campus to experience the flowers and solar panel blooms!

With gratitude,  
Shaun Ghafari, Ph.D., P.Eng  
Associate Dean



## THE SMART LAB BLOOMS AT NORTH CAMPUS

Have you noticed the structure that looks like a flower outside the parking garage at North Campus and wondered what it is?

It's part of the Sustainable MicroGrid and Renewable Technology (SMART) Lab that recently celebrated its grand opening!

Located on the second floor of the parking garage and in collaboration with industry partner Siemens Canada, The SMART Lab provides an educational and experimental environment to train students and professionals on the use of a microgrid system which reliably manages the generation, storage and consumption of energy.

The structure, which is known as a Smartflower, is inspired by sunflowers. Equipped with solar panels, the Smartflower follows the sun throughout the day and can close at night or when there's high wind. The electricity it generates is controlled by The SMART Lab, and some of the electricity is stored in batteries and used at the lab's EV charging stations.

The Smartflower is an effective learning tool to teach students about the concept of solar panels and how microgrids can generate, distribute, and control power in a campus setting, a small community, in critical infrastructure, commercial and industrial areas, remote locations, and on islands.

Another milestone in Humber's commitment to sustainability, The SMART Lab will provide students with the opportunity to gain a range of knowledge and professional skills related to the design, operation and maintenance of microgrids through hands-on learning. The Lab will also be used for future applied research projects and will allow the college to offer micro-credentials in the field of microgrid and renewable energy.



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## FIRST ROBOTICS RETURNED TO HUMBER

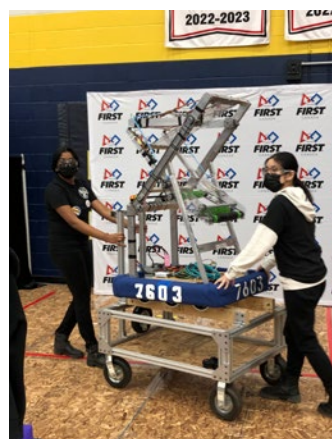
Sounds of metal clanging, power tools buzzing and engines whirring once again filled the Athletic Centre at Humber College's North Campus from March 17-19 as 400+ high school students took part in the *FIRST* Robotics Competition.

Combining the excitement of sport with the rigors of science and technology, the *FIRST* Robotics Competition is the ultimate sport for the mind. The competition provides high school students and their adult mentors the opportunity to collaborate and work together to solve a common problem.

During the two-day competition, 30+ teams representing schools from London to Kingston, Ontario flexed their engineering, coding and design skills as they put their homemade robots to the test in a series of specially designed challenges.

Thank you to Lynn VanLieshout, Geraldine Babcock and the entire Community Outreach and Workforce Development team who collaborated with faculty, staff, technologists and volunteers to coordinate this exciting annual event and provide mentorship and support throughout the weekend.

Read the [Humber Today feature story](#) and [watch this video](#) to be inspired by the leaders, innovators & engineers of tomorrow!





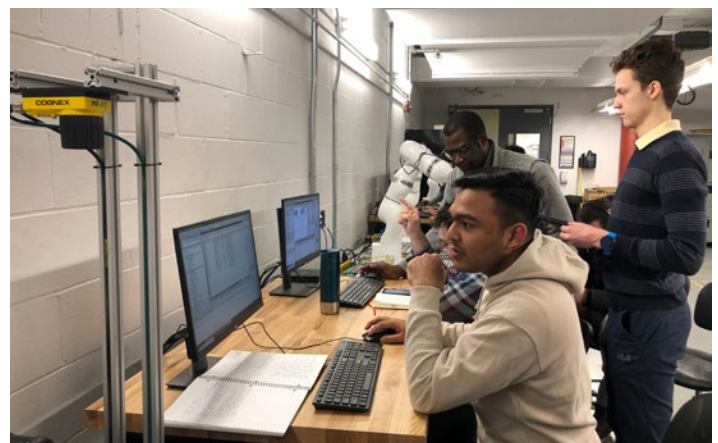
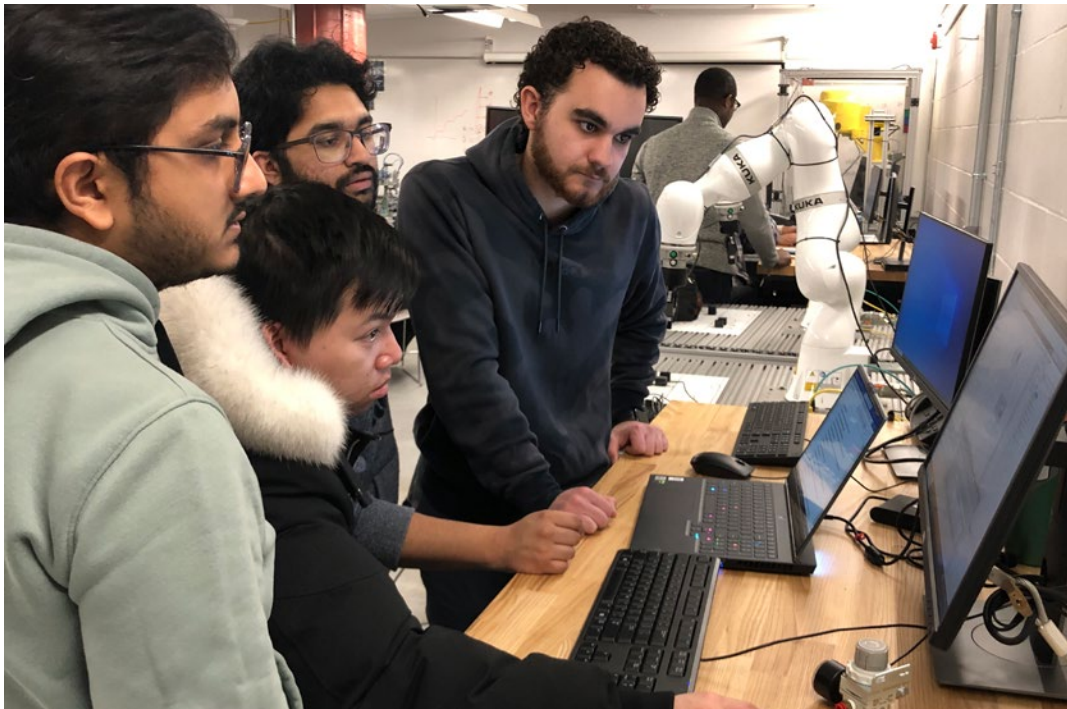
## ADVANCED ROBOTICS COURSE LAUNCHES

The *FIRST* Robotics Competition may have wrapped up at the Athletic Centre but the sounds of engines humming continue with the addition of a new Advanced Robotics Course!

Located in the basement of the N Building at North Campus (NB119), this course (ATMN 360) presents the principles of advanced robotic systems and their instrumentations emphasizing practical applications.

Taught by Professor Mehrdad Iravani Tabrizipour, students learn basic principles of robot navigation systems including perception, error propagation, localization, and path planning.

A series of laboratory assignments in the Advanced Robotics Laboratory will enrich the practical aspects of the course, where students learn to program different collaborative robots and learn their various elements, such as 3D sensors and autonomous motion module.





## CIVIL ENGINEERING TECHNOLOGY STUDENTS DRIVEN TO VISIT TRAFFIC OPERATIONS CENTRE

Professor Udai Hasein, Ph.D, P.Eng, coordinated third-year students from the Civil Engineering Technology, CIVL-365 Transportation course, to visit the Traffic Operations Centre (TOC) – the City of Toronto’s transportation network hub.

During their visit to the traffic engineering management center, the students benefited from several real-world experiences that helped them better understand transportation and traffic engineering concepts. By seeing the operations and technologies used in the centre, they gained a deeper appreciation for the complex systems involved in managing traffic flow.

While at the centre, they also had the opportunity to network with transportation and traffic engineering professionals. This allowed the students to build relationships and gain insight into potential career paths they may want to pursue.

The visit challenged the students to think critically about transportation and traffic engineering issues and to apply their classroom knowledge to real-world situations. By doing so, they were able to improve their retention of the concepts taught in the classroom.

Overall, the visit to the traffic engineering management centre provided them a valuable learning experience beyond what they could learn in the classroom alone. It allowed the students to gain practical knowledge and a deeper understanding of transportation and traffic engineering concepts and helped them make informed decisions about their future educational and career goals.



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## WORK-INTEGRATED LEARNING CAREER FAIR

Our FAST Work-Integrated Learning team continues to coordinate WIL Career Fairs for our students!

On March 15, students and soon-to-be-graduates from advanced manufacturing, design & built environment, information & communications technology, engineering degrees, skilled trades and graduate certificates had the opportunity to network with more than 40 industry partners.

Together with our industry partners, we are working to ensure our Humber FAST students are set-up for success.

Thank you to Janice Wojcik, Melanie Katovich and the entire team at the FAST WIL & Industry Engagement Co-op & Work Placement Services Office, who helped coordinate this Career Fair that provided an opportunity for students to network & learn about co-op & employment opportunities!





## FAST HOSTS INTERNATIONAL WOMENS DAY EVENT DURING NATIONAL ENGINEERING MONTH

Humber FAST was a proud partner of National Engineering Month – Canada’s engineering event of the year!

To recognize and celebrate International Women’s Day, a panel of fearless women and a supportive man shared their authentic stories and how there is strength in our differences to bring innovation, productivity, and pride to a more elastic workforce.

Thank you to Dr. Gina Antonacci, Dr. Shaun Ghafari, Dr. Martine Spinks and industry colleagues Corey Meunier, Firoozeh Khalily, and Muktha Tumkur for hosting an insightful discussion and thought-provoking points of view.

“There is a place for you at Humber College”

Dr. Gina Antonacci



“There is no shortage of exciting careers in STEM fields and there is no better time to contribute to this advancement.”

Firoozeh Khalily, Vice President, National Field Operations, Rogers Canada



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## PMPG SPEED NETWORKING EVENT

The PMPG North Leadership Club held its first Speed Networking Event, “Enabling Excellence.”

This event provided an opportunity for learners to interface with industry experts, including Humber Alumni, representing banking, construction, information technology, life sciences, finance, healthcare, and insurance industries within the Greater Toronto Area.





## PEOPLE OF CARRIER DRIVE

### Colin Wildman married his career with his passion for welding

By Cindy Giang

*Cindy is a student in the Bachelor of Public Relations program and is currently a Work Study student at the Centre for Skilled Trades & Technology, Carrier Drive*

Welding Techniques program coordinator Colin Wildman says this about his trade. “I saw that there was an opening for a welding program and as soon as I tried it – I loved it.”

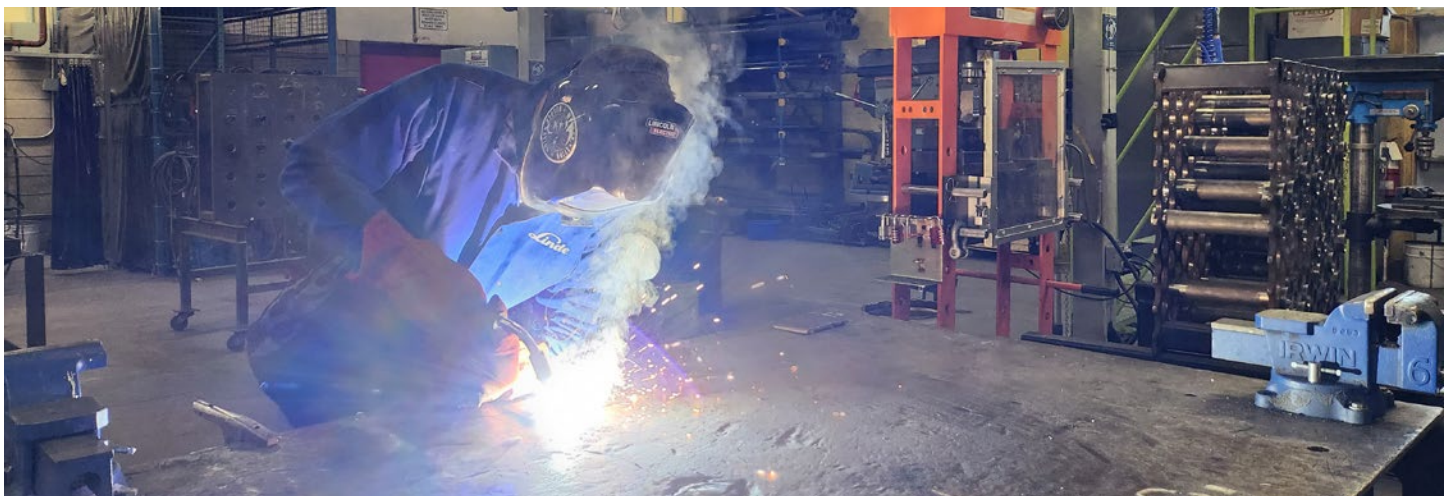
With previous experiences in a variety of jobs including the hospitality industry Colin found his passion in welding.

Having to work as a cook for 12 years after high school, Colin wanted more. He learned that many professions such as boilermakers need welders, and many older welders were retiring so there were spaces just waiting to be filled. With that in mind, he went to college and got certified with the Canadian Welding Bureau Group before working for four years as a welder at a company in Guelph. Longing to pursue higher career goals, he took a leap of faith and applied to be a part-time welding instructor at Humber College.

Colin says his favourite part of being an instructor is seeing his student’s progression, from “shaking like a leaf when they see all the things that can potentially kill you,” to being comfortable with the equipment. He is motivated to be an instructor that can make a difference by adapting his lesson plans to his student’s knowledge on a daily basis. His love for welding and his adaptive teaching style led him to be hired as a full-time instructor, which he says was his most memorable career moment because it gave him a “big sense of security.”

Colin’s dynamic contributions have led him to his current role as a program coordinator, where he is actively involved in creating course outlines and helping students with getting hired in the field. It also allows him to “improve the program everyday to help students learn to develop a better skillset.”

His message to students: be courageous in pursuing your passion. For anyone that has an interest in getting into welding, he highly encourages him or her to do it. “Not everybody is going to like it, but the people that like it are going to love it,” explains Colin.



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## FAST MILESTONES

Congratulations to the following support staff and faculty members who are celebrating a Career Milestone in April! We truly appreciate your contributions to the Humber FAST community and congratulate you on reaching this important milestone!

**1 year** Navpreet Kaur  
**5 years** Khaled Ibrahim



## UPCOMING EVENTS

### APRIL 7

Good Friday – Campus is Closed

### APRIL 12

Humber College Scholarship Celebration  
6 PM

### APRIL 14

ICT Capstone Expo  
BarrettCTI  
2 - 5 PM

### APRIL 15

Spring Open House  
10 AM – 2 PM

### APRIL 21

Advanced Manufacturing Cluster Capstone  
BarrettCTI  
1 – 3 PM

### APRIL 25

Interior Decorating Showcase  
BarrettCTI, 5th Floor  
5 - 7 PM

### APRIL 27

Bachelor of Interior Design Thesis Show  
BarrettCTI Main Atrium  
6 – 9 PM

### APRIL 28





Bachelor of Industrial Design Thesis Show  
BarrettCTI Main Atrium  
6 – 9:30 PM

### MAY 2&3

Ontario Skills Competition  
Toronto Congress Centre

## WE WANT TO HEAR FROM YOU!

**FAST TIMES** recognizes and celebrates the achievements of our faculty and students. To share your successes with us, please submit stories and images to the Office of the Senior Dean, Julie Pasquin: [julie.pasquin@humber.ca](mailto:julie.pasquin@humber.ca)

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