



FAST News

APRIL 2024

DEAN'S MESSAGE

Dear Colleagues,

April is such an exciting time on campus when some of our graduating students present their capstone projects!

This is the result of continuous development over the course of their academic journey, applying their learning outcomes and showcasing their skills, that lead to this final moment. These projects often include an industry sponsor which enables students to learn from these experts and help solve real industry challenges. In this issue, we highlight our March ICT Capstone Engagement Event where students networked with industry to secure sponsors for their capstone projects.

While these students are completing their time at Humber, this issue highlights when we welcomed and engaged with high school students at the FIRST Robotics Competition who are making informed choices as they decide on their post-secondary destination...which we hope is Humber College!

We have many more compelling stories that I look forward to you discovering on the following pages, including a feature on Dr. Maryam Davoudpour who is working on a research project that has the potential for substantial cost and resource savings for health-care facilities along with improved patient outcomes.

**WE ARE
FUTURE FOCUSED**

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It takes a community to help our students graduate career-ready. On behalf of FAST, I extend our gratitude to faculty, staff, industry and community partners who have generously supported our students during their final journey at Humber College.

It's incredible to watch our students rise to the challenge and work together to produce impressive work in their respective programs. I hope you will join me and attend all the various Capstone Expos in April so we can celebrate and applaud their efforts!

Warm regards,
Francis Syms, P.Eng
Associate Dean



HUMBER COLLEGE CHAMPIONS WOMEN IN STEM

In our effort to showcase how Humber College Champions Women in STEM, the Humber College community and more than 50 high school students, came together for an empowering afternoon to commemorate International Women's Day.

A panel of engineering professionals shared their authentic stories and how there is strength in our differences to bring innovation, productivity, and pride to a more elastic workforce.

The event showcased the remarkable journeys of engineering professionals whose stories exemplified resilience, determination, and the transformative power of diversity in engineering:

- Professor Maria Jacome, PhD, Civil Engineering Technology, Humber College
- Firoozeh Khalily, Vice President, National Field Operations, Rogers Communications and FAST PAC member
- Elizabeth Pietrantonio, retired, Associate Dean of Electrical and Computer Engineering Technology and recipient of President's Award from the Ontario Society of Professional Engineers
- Maryam Rezaie, Technical Manager, Salit Steel and FAST PAC member
- Gaya Anandakumar P.Eng., PMP, Electrical Engineer, Infrastructure, HATCH
- Janice A. Wojcik, Manager, Work Integrated Learning & Industry Engagement Co-op & Work Placement Services Office, Humber College (moderator)

Dr. Shaun Ghafari, P.Eng., Dean, Engineering, delivered the opening remarks and closing remarks were delivered by Samara Ocansey, second year, Bachelor of Engineering, Sustainable Building Engineering student and president of the Women In Engineering Club.

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As we continue to celebrate and uplift women in STEM, we will remember the invaluable lessons learned and the strides we continue to make. Together, we can create a more inclusive and empowering future with new perspectives to help women engineer her dream career.



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HOME SWEET HUMBER

CELEBRATING AND SHOWCASING LIFE AT NORTH CAMPUS AND CARRIER DRIVE!

ICT CAPSTONE ENGAGEMENT EVENT



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WORK-INTEGRATED LEARNING CAREER FAIR



Share your life on campus images in the next FAST News issue! Please submit to [Jennifer Buchalter](mailto:jennifer.buchalter@humber.ca).

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FIRST ROBOTICS RETURNED TO HUMBER

Once again, gears were turning and circuits were buzzing as Humber College hosted a FIRST Robotics District Competition in partnership with FIRST (For Inspiration and Recognition of Science and Technology) Robotics Canada.

This year's theme celebrated the roles played by STEAM (Science, Technology, Engineering, Arts and Math) skills in the realms of arts and design. Teams participating in the competition used props as musical notes during the matches, adding an artistic dimension to the challenge.

More than 30 teams from diverse backgrounds gathered at Humber to showcase their skills, combining the principles of sport, science, and teamwork. From there, the journey continues for the chance to represent their region at the prestigious FIRST World Championship Event in Houston, Texas.

A special shout out to Lynn VanLieshout, Manager, Community Projects Community Outreach and Workforce Development and her team who organizes this annual event!





FAST RESEARCHERS

FAST PROFESSOR'S RESEARCH PROJECT DEVELOPING A DEVICE TO STIMULATE BEDRIDDEN PATIENT'S MUSCLES

Dr. Maryam Davoudpour is working on a research project that has the potential for substantial cost and resource savings for health-care facilities along with improved patient outcomes.

Together with teams from St. Michael's Hospital, the University of Toronto and Toronto Metropolitan University, Dr. Davoudpour is working on this project called Smart Textiles to Deliver Neuromuscular Electrical Stimulation (NMES) for Intensive Care Unit Acquired Weakness (ICUAW).

The project's objective was to create a device that will connect to smart textile garments such as leg stockings and arm sleeves that will allow for automated and sustained NMES. NMES sends electrical impulses to nerves, which cause the muscles to contract.

Learn more about this exciting research project in this Humber Today [feature story](#).





FAST PROFESSOR'S RESEARCH BENEFITTING INDUSTRY WHILE ALSO PROVIDING SOCIAL GOOD

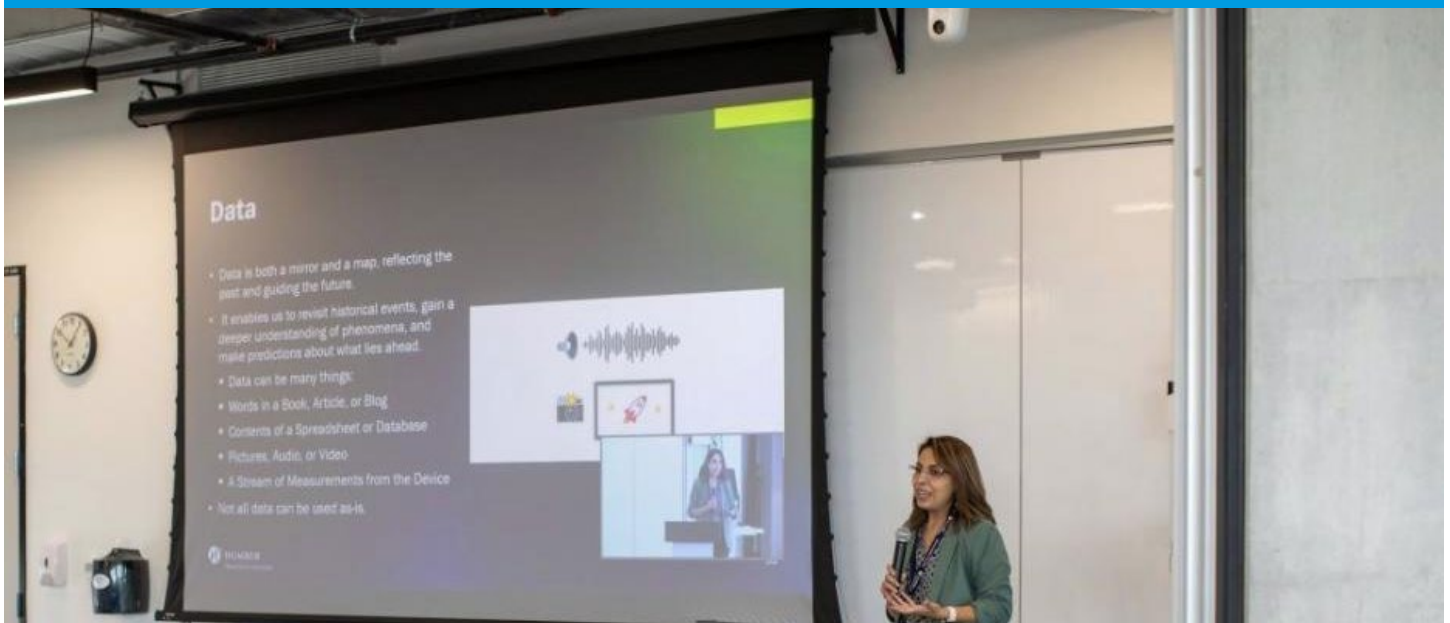


What Parisa Pouladzadeh loves about research is that you're always learning something new.

Pouladzadeh, a professor and program coordinator with the Artificial Intelligence (AI) with Machine Learning program, said research also plays a valuable role in allowing her to stay current in her area of expertise. As she notes, AI is evolving rapidly and it's easy to fall behind on the latest trends. Conducting research allows her to stay plugged in and up to date on what's happening with AI, which has benefits both for her and her students.

Pouladzadeh had a research project that wrapped up last summer where she and her team of research assistants were tasked with designing a system with the ability to process and classify speech signals to detect emotions. In simpler terms, it will detect what emotion is being expressed in a phone call in real-time.

Learn more in this Humber Today [feature story](#).





BARRETT CENTRE FOR TECHNOLOGY INNOVATION

MECHATRONICS SKILLS AWARD CEREMONY: CELEBRATING STUDENT ACHIEVEMENT AND INDUSTRY EXCELLENCE

Last month, our institution hosted the Mechatronics Skills award ceremony, celebrating students' dedication and achievements. The event fostered camaraderie and motivation through inspiring stories and experiences and featured the first all female team. Students showcased their talents, inspiring future excellence in mechatronics, and sponsors and mentors were recognized for their invaluable contributions.

The ceremony highlighted the importance of practical skills development and reaffirmed belief in the industry's bright future.

Continuous learning and growth were encouraged among students and a commitment to their success was supported by faculty, staff, sponsors and mentors.

Congratulations to all participating students!





FAST LEARNERS

STUDENT SPOTLIGHT



NAME:

Tajay Housen

PROGRAM OF STUDY:

Computer System Technician

CURRENT YEAR:

2024 Graduating Year

TITLE OF PROJECT:

Humber International Student Visitor Tracking and Flow Prediction Using Web cameras Deployment

TELL US ABOUT YOUR PROJECT OR INITIATIVE?

Humber International Centre faced a problem where they were unable to accurately keep count of the number of students entering the department on a daily basis. This is where our project idea came about as they wanted to create an efficient and automated way to accurately capture this data so that management

would be able to effectively allocate the correct number of employees on days where traffic in the department is the highest. Our application accomplished this by using two strategically placed web cameras to detect and keep count of the number of students entering the centre and temporarily store this data with the integration of Python and MySQL. After this data was collected, we programmed the application to send an excel report to a predefined email address at 4:30 PM everyday as this is the time the international centre closes. To protect student data, the database is wiped every 24 hours to maintain integrity and confidentiality. The excel reports helped the department to accurately analyse and determine which days or months the office will be most busy and deploy their workforce accordingly.

WHAT WERE SOME OF THE MOST IMPORTANT THINGS YOU LEARNED?

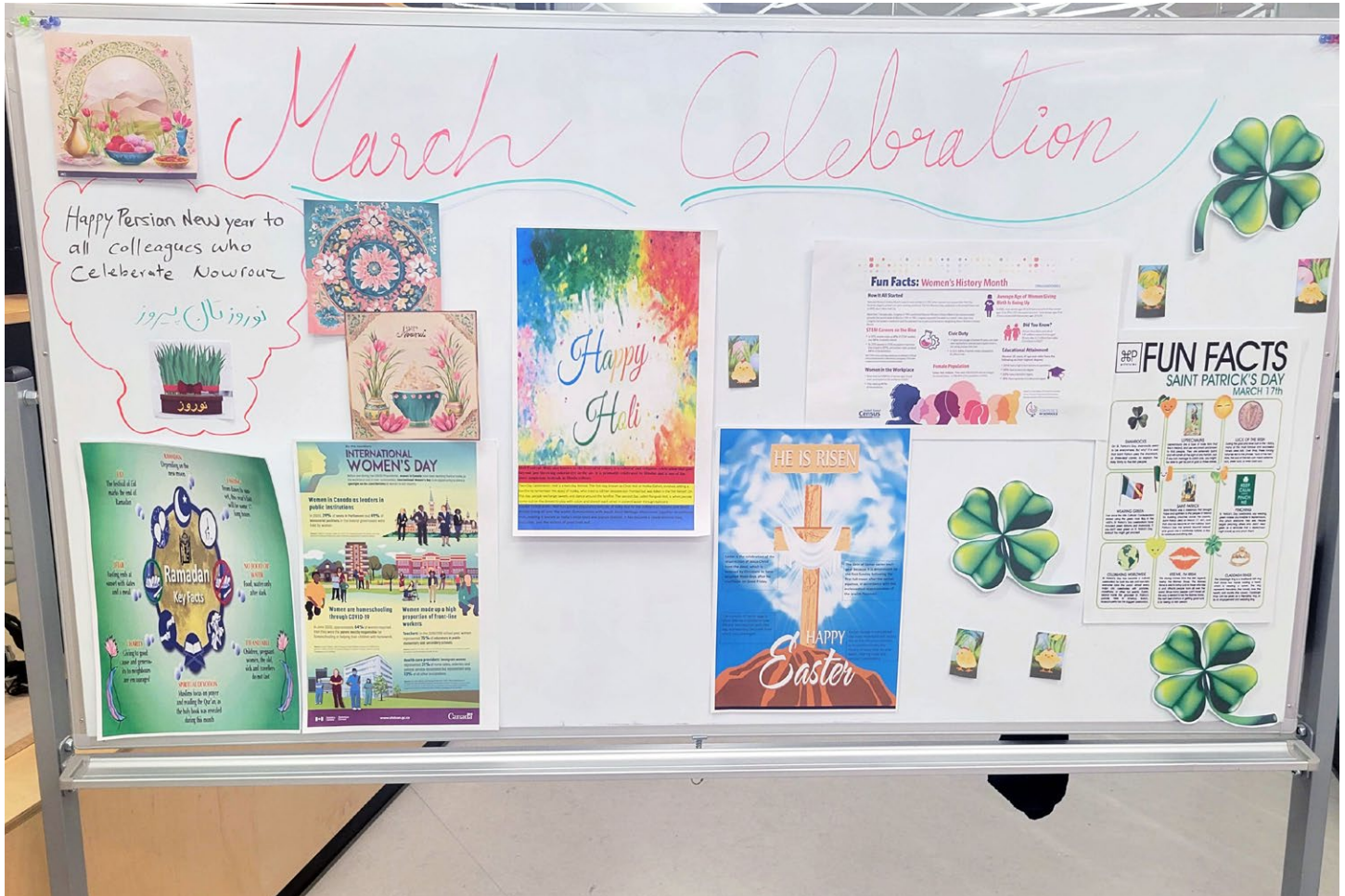
The most important thing I learned during my time completing this project is patience. When creating an application heavily dependent on coding there are bound to be errors, especially simple ones that are easily overlooked. I can recall being up until 3 AM in the morning trying to find out why the code wasn't running or why it ran but was not functioning properly. Through this all, I learned it is important to have perseverance and keep going even when we are faced with insurmountable obstacles.

WHAT ADVICE WOULD YOU GIVE TO OTHER STUDENTS INTERESTED IN YOUR PROGRAM?

My advice to other students interested in this program is to ensure you get a firm grasp of the concepts covered in the first and second semester as this will be fundamental in completing your studies. Also don't hesitate to seek assistance from your professors whenever you encounter difficulty understanding a topic. They are always willing to provide guidance; all you need to do is ask.

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CULTURAL CELEBRATIONS

The FAST community is committed to embarking on a journey of exploring the rich tapestry of cultural celebrations and holidays brought by our diverse faculty and students from around the world.

We invite you to join us in contributing ideas for our interactive whiteboard display, attending our educational sessions, and expanding your horizons by learning something new. Together, we can accomplish great things and foster a deeper understanding and appreciation of our global community.

Please email ticker-lee.thompson@humber.ca if you have any holidays you would like to have recognized in the upcoming months.



FAST IN THE NEWS

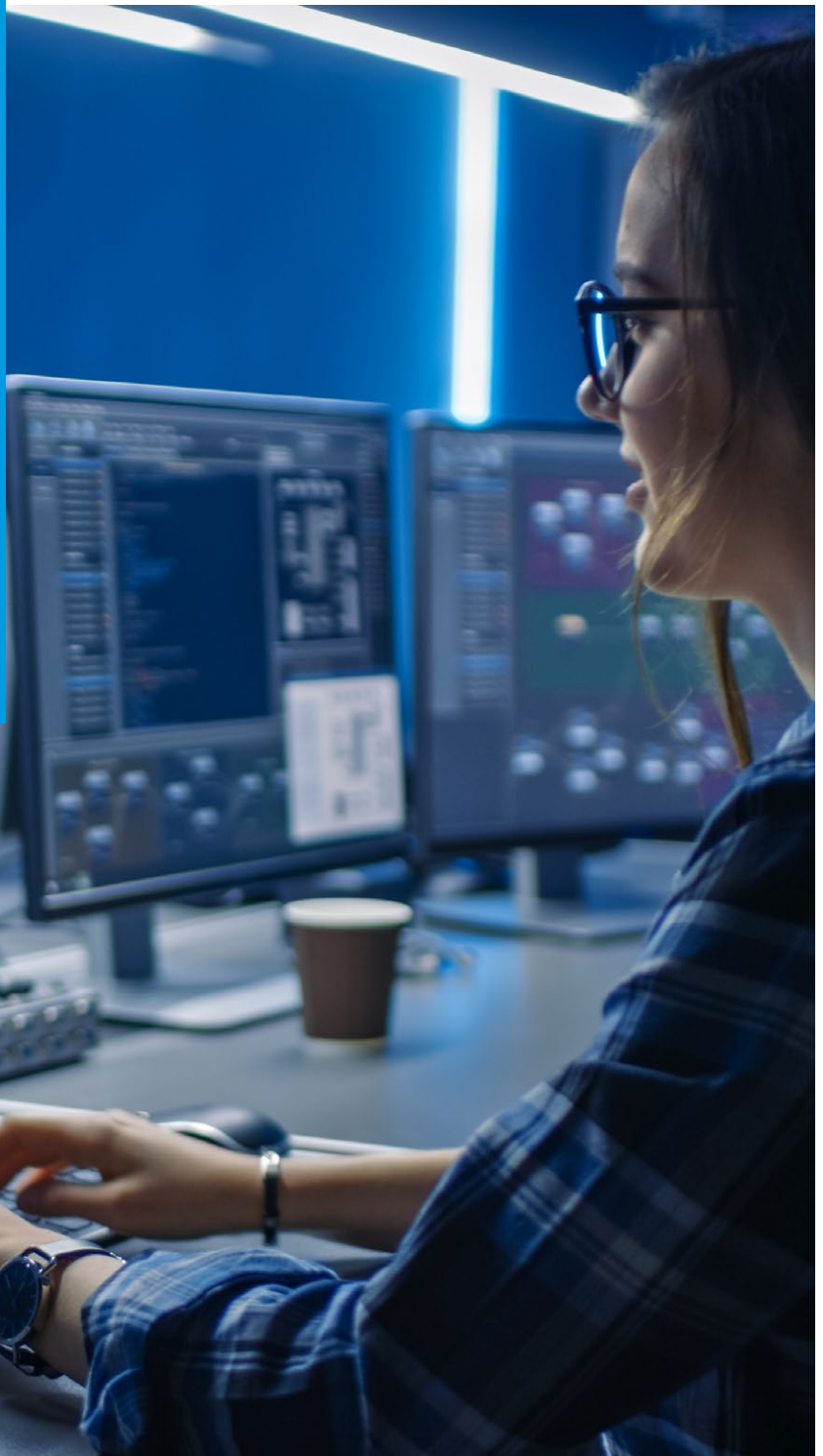
HUMBER STUDENTS NEED CYBERSECURITY TRAINING

Haidar Jabbar, a professor who specializes in Application Security Testing in cybersecurity, says it would be beneficial to prepare students for potential cyber-attacks.

“In today’s digital age, cybersecurity threats are prevalent across various sectors, and individuals need to understand how to protect themselves and their data online,” he said.

“Providing cybersecurity training to students not only equips them with essential skills and knowledge to navigate cyberspace securely but also cultivates a culture of cybersecurity awareness and responsibility,” Jabbar said.

Learn more in this Humber News [feature story](#).



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FAST CELEBRATIONS

Congratulations to the following FAST students who are celebrating the following achievements!

- Shota Asada
AWS Certified Cloud Practitioner
Amazon Web Services
- Steven Starovoitov
Cybersecurity Certification
International Information System
Security Certification Consortium
(ISC2)
- Scott MacDonnell
Cybersecurity Certification
International Information System
Security Certification Consortium
(ISC2)

FAST MILESTONES

Congratulations to the following FAST 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!

15 YEARS

Drew Aaslepp

1 YEAR

Amarpreet Kaur



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UPCOMING EVENTS

April 6

Spring Open House
General Information - LRC
Individual FAST Program Booths - E135 Lecture Theatre
Concourse

April 8

Solar Eclipse

April 12

ICT Capstone Expo
2:00 – 5:00 PM
Barrett CTI Atrium

April 17

AI in Architecture and Interior Design Showcase
12:30 – 6:00 PM
North F309

April 22

Engineering Capstone Showcase
1:00 – 4:00 PM
Barrett CTI Atrium, 3rd and 4th Floors

April 24


AWS Deep Racer Competition
Barrett CTI

April 29 – May 3

Orientation Week

WE WANT TO HEAR FROM YOU!

FAST NEWS 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

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