



**HUMBER**

Faculty of Applied Sciences & Technology

# FAST News

MARCH 2022

## DEAN'S MESSAGE

Dear Colleagues,

March is an invigorating month when winter recedes, the changing climate brings warmer days rewarding us with pure Ontario maple syrup, and the lengthening hours of daylight welcome spring with renewed energy.

It is also a rejuvenating time for FAST as we welcome new team members and annual celebrations and say farewell to partnerships and treasured faculty.

This month, FAST looks forward to honouring International Women's Day (IWD) and continuing to advance engineering education and emerging technologies as a proud partner of National Engineering Month – Canada's largest celebration of engineering excellence.

March is also National Co-Op and WIL Month. Work-Integrated Learning is in FAST's DNA and we are excited to shine a spotlight on a valuable industry partner who supported three students so they could gain hands-on experience in their work placement.

[Continue reading on next page.](#)

**WE ARE  
FUTURE FOCUSED**

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While this enriching experience helps our graduates launch their successful careers, it also cultivates a desire to show appreciation and share their time and expertise. Learn how a graduate from our Design and Built Environment is paying it forward and committed to mentoring the next generation. The selfless act of volunteering our time enables us to transform lives locally, regionally and globally.

Our participation in the Kenya Education for Employment (KEFEP-02) project has played a key role in training teachers and lab technicians for a newly developed industrial plant operations program at the Kisumu National Polytechnic in Kisumu, Kenya.

And while the final curtain closes on this five-year project, our important work will continue with the Young Africa Works-Kenya: Youth Employability through TVET (Young Africa Works in Kenya-TVET) initiative. We have the collective ability and responsibility to transform education on a global stage and this interdisciplinary initiative will develop future leaders and global citizens.

As our grey landscape transforms into bursts of spring colours and our province is starting to open up after two years of the pandemic, I encourage you to consider volunteering and give the gift of giving back to your local community. Whether it's joining an IWD event, participating in an industry panel discussion, or volunteering at a local charity, volunteering sparks positive change.

Together, we are making a difference.

With gratitude,  
Dr. Farzad Rayegani, P.Eng, FEC.  
Senior Dean

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## MARCH IS NATIONAL ENGINEERING MONTH

Humber FAST is a proud partner of National Engineering Month – Canada’s engineering event of the year with more than 40 free, online events for the engineering and technology community!

NEM 2022 will continue to focus on lifelong learning for post-secondary students & interdisciplinary professionals as well as equity, diversity & inclusion.

FAST will be hosting two events in March with bold topics, industry expertise and diverse perspectives to spark discussion.

**Tuesday, March 8 at 6:00 PM**

### International Women’s Day

**Title:** Humber College Champions Women in STEM

**Description:** A panel of fearless women and supportive men will share their authentic stories and how there is strength in our differences to bring innovation, productivity, and pride to a more elastic workforce. Join us as we inspire, connect and empower participants to recognize and celebrate International Women’s Day.

### Participants

- Dr. Martine Spinks, Associate Dean, Design & Built Environment, FAST (moderator)
- Dr. Jonathan Kim, P.Eng., Associate Dean, Information and Communication Technology (ICT), FAST
- Janice A. Wojcik, B.A.Sc., Manager, Work Integrated Learning & Industry Engagement Co-op & Work Placement Services Office, FAST
- Dr. Daniela Galatro, MSc. in Mechanical Engineer, Assistant Professor, Department of Chemical Engineering and Applied Chemistry, University of Toronto
- Cassandra Birtch – First Year Student, Built Environment, Bachelor of Engineering, FAST

**Friday, March 25 at 6:00 PM**

### Theme Week: Equity, Diversity & Inclusion

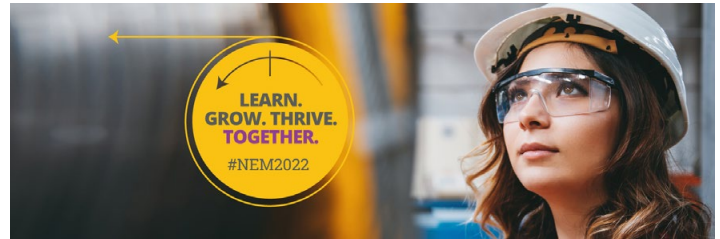
**Title:** Humber College Drives Inclusive & Continuous Professional Learning

**Description:** Leaders from academia and industry will share the importance of leveraging our diversity and providing all Canadians with the opportunity to gain current, industry relevant skills. Join us as we discuss the importance of personal and professional growth needed for a world of constant change.

### Participants

- Dr. David Smiderle, Associate Dean, Continuous Professional Learning (CPL), FAST
- Yuka Maruyama, M.Eng., P.Eng., Engineering & Maintenance Manager, Magna Powertrain, Unimotion-Gear

Visit their [website](#) to register and for a full listing of events.





### FAST PARTNERS WITH ACADEMIC UPGRADING

FAST has developed a partnership with Humber's Academic Upgrading service of the Literacy and Basic Skills Program (LBS) to increase the success rate of students in apprenticeship programs including Electrical Apprentices (ELAP) and Plumbing Apprentices (PLAP).

The goal of the partnership is to provide math support for apprenticeship students to prepare them to be successful in their math examination. The math tutoring is done outside of the regular in-school portion of their apprenticeship training. Participating students are considered LBS learners and attend two hours per week for eight to ten weeks, in addition to their regular curriculum hours.



The Academic Upgrading (AU) is a tuition-free, non-postsecondary Employment Ontario program funded by the Ministry of Labour, Training & Skills Development.

Read the full feature article in [The Apprenticeship Connection](#), published by Learning Networks of Ontario and an opportunity to share information about apprenticeship in Ontario and how Ontario's Literacy and Basic Skills (LBS) service providers can support the broader skilled trades community.

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### FAST FACULTY SECURES CANADIAN INSTITUTE OF HEALTH RESEARCH GRANT

Congratulations to Dr. Maria Jacome, P.Geo who together with her colleague, Professor Cristina Amon, P.Eng at the University of Toronto has secured the Canadian Institute of Health Research Grant for their 'Caring for the Thunderbird's Nest: Characterizing and Monitoring Inequitable Exposures to Ground and Air Pollution with Fort William First Nation, Using Machine Learning Tools.'

We wish Dr. Jacome and Professor Amon the best of luck with their applied research initiative!





### **DR. DEHKORDI RECIPIENT OF NSERC ENGAGE GRANT**

We are happy to announce that FAST faculty Dr. Hamid Dehkordi, P.Eng received the Natural Sciences and Engineering Research Council of Canada (NSERC) Engage Grant Funding for his proposal “Design and Simulate Leaf Guard to Improve Drainage Capability” with industry partner NEEB Engineering Inc.

NEEB Engineering has developed a rainwater harvesting system (RWH) to address the growing challenge of water scarcity and to satisfy the growing trend for sustainable technologies in the building construction sector.

The leaf guard is an important component of the RWH technology in ensuring optimum water quality and this grant will help determine how to optimize the water capture and drainage capability of the leaf guard by means of computer modeling.

Please join us in congratulating Dr. Hamid Dehkordi. We wish him the best of luck with this applied research initiative!



### **FAST GRADUATE CHOSEN AS CANADA GREEN BUILDING COUNCIL EMERGING GREEN PROFESSIONAL MENTOR**

We take great pride when graduates pay it forward and are dedicated to mentoring the next generation.

Emma Wildeman, FAST 2013 Sustainable Energy and Building Technology (SEBT) graduate has been chosen as a Canada Green Building Council and Emerging Green Professionals Mentor for 2022!

Over her 9-year career in energy management, Emma has developed a pragmatic and collaborative approach to implementing efficiency projects. She is the Energy and Sustainability Manager at First Capital REIT and is a Certified Energy Manager (CEM) and Certified Engineering Technologist (CET).

Emma’s goal and passion is to drive true energy and carbon savings by motivating building operators. While installing a technology may look good on paper, a team effort at the site level is required for long lasting energy savings and Emma plays a key role to ensure project success.

Read on for more information on [The Canada Green Building Council \(CaGBC\) and Emerging Green Professionals \(EGP\) Mentorship Program](#).



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## WELCOME TO FAST!

We are pleased to welcome Shivani Sharma to our FAST team of Faculty Schedulers. Shivani will be responsible for all scheduling activities in our 110 Carrier Drive location.

Shivani comes to us from the Education and Training Solutions (ETS) where she was a Financial Administrative Assistant. Prior to ETS, Shivani worked in various support roles within FAST, and recently did a secondment for a year as Faculty Scheduler for programs in the Design & Built Environment and ICT clusters. She also worked briefly as scheduler in the Faculty of Social and Community Services.

Shivani holds a BBA from the University of Guelph-Humber and Business Administration-Accounting diploma from Humber College.

Please join us in extending a warm welcome to Shivani!



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## MUHAMMAD VIRK RETIRES TO BEGIN A NEW CHAPTER

After 15 years of service and dedication to the Humber College community, we announce Muhammad Virk is retiring.

A Humber College graduate, Muhammad served students and community partners in various roles including Project Manager and CE Coordinator.

During his tenure, Muhammad made strong contributions to our community while completing his master's degree and additional certificates at Humber.

We extend our warmest wishes to Muhammad for a wonderful retirement filled with new chapters and good health!





### WORK-INTEGRATED LEARNING

March is National Co-op and WIL Month and Wednesday, March 23 is National Day of WIL!

Work-Integrated Learning is in FAST's DNA giving students the hands-on, career-driven education Humber College is known for.

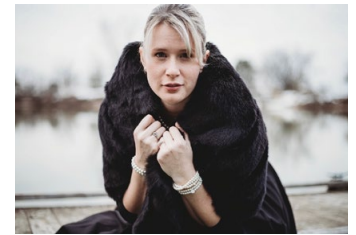
To celebrate Co-operative Education and Work-Integrated Learning, we are spotlighting three FAST students who conducted their placement at Magna. This valuable industry partner supports student development by providing hands-on, invaluable work-integrated learning opportunities across our advanced manufacturing and design programs. Here are just some of our student success stories!

**Name:** Shanelle Weber

**Program of study:** Electromechanical Engineering Technology, Co-op

**Work placement:** Magna Closures - Technical Lab

**When:** September – December 2021



#### **What did you do during your placement?**

In the role of Test Technician (Co-op), I found myself doing things I would never have imagined and honestly before starting at Humber, would have been scared to try. I made use of a wide variety of tools and even worked in a variety of environmental chambers (from hot as an oven to icy cold or humid).

My main responsibility was to perform tests and report the results. As you can imagine, accuracy was a priority and I learned a lot about the testing set up process, the importance of calibration of measurement tools and reporting information of any errors. The work was hard, but rewarding as I got to see much of a project completed during the four months I was there.

#### **What were some of the most important things you learned during your placement?**

I am lucky to have been considered for a co-op experience with Magna. While Humber provided me with a lot of great training in my first year, my position as Test Technician allowed me to improve those skill sets and build confidence.

I had great mentors that encouraged me to do more challenging projects. I also had a fantastic team that gave me support and guidance whenever I needed it. I feel that Magna's best quality is their people as they are all dedicated, passionate, brilliant and inspire that in new team members. I have built a network in an industry I may potentially enter into in the future.

I haven't decided yet on where I want to end up when I graduate, but I feel that Magna has provided me with an excellent stepping stone to reach wherever I want to go.



### WIL SUCCESS SPOTLIGHT

**Name:** Kamil Bafia

**Program of study:** Electromechanical Engineering Technology, Co-op

**Work placement:** Magna Electronics Vision Centre – Vectrics

**When:** May – December 2021



#### What did you do during your placement?

In my role as Co-op Engineering Technician (Fixture and Integration), my primary job duties included working on 3D CADs of prototype brackets, designing and drawing electrical schematics, testing new features on self-driving cars, creating safety features in C++, and aiding in data collection.

#### What were some of the most important things you learned during your placement?

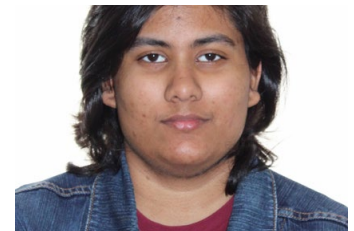
One of the key things I learned in my placement was safety awareness as we were working with autonomous vehicles and self-driving features. This was very important for my safety and that of the rest of the team working on the vehicles. Another major learning curve was being part of such a large team of engineers. I really got the chance to experience and be a member of an amazing group of people and got to develop real-life products. One of the projects I contributed to was assisting in testing the features that were implemented on the brand new 2022 Toyota Tundra pickup truck. We had developed some of the key features on the truck and I had the pleasure of working on implementing electronics and driving the truck for data collection.

**Name:** Juanita Franks

**Program of study:** Bachelor of Industrial Design

**Work placement:** Massiv Automated Systems, a Division of Magna International Inc.

**When:** May – August 2021



#### What did you do during your placement?

My role was Technical Process Writer, and most of the projects that I worked on were on a smaller scale and involved the creation of layouts and plans for robotic assembly lines for the manufacturing of automotive structures and sub-assemblies for clients. I also created build sequences that showed the process of how the automobile part would come together in the assembly line, created full-size 2D CAD models of automobile parts for layouts, and assisted team members in making CAD assemblies.

#### What were some of the most important things you learned during your placement?

After a couple of weeks at my work placement I noticed how closely related the skills and techniques of a technical process writer is to that of an industrial designer and I was also able to acquire new skills that would enrich my abilities and understanding as a designer.

I was better able to understand the development of assembly lines and the importance of efficient cycles times. Now equipped with such knowledge, I feel my understanding of the manufacturing process has been greatly enhanced, and I will be able to apply this knowledge to design products. At the start of my placement, I was only able to utilize one type of CAD software, however, following my internship I am well-versed in at least three different software packages, and I discovered I can quickly adapt to learn new software. Lastly, I am quite reserved and do not engage in conversation relatively easily, but this placement has improved my ability to communicate more effectively as well as to demonstrate initiative regarding my learning. As a result, I was better able to work in a team setting and complete projects in an efficient and timely manner.

In addition to acquiring new skills, I felt this work placement provided me an invaluable opportunity to connect with professionals in my field that will be helpful to my future career success. For students in work placement, I would say participating is a beneficial, rich experience that will hone your various skills and allow you to further yourself professionally.





### FACULTY WHO LEAD TO INSPIRE

#### Dr. Maryam Davoudpour

Growing up in Iran, Dr. Maryam Davoudpour was always curious. She wanted to know what was inside their family's television, how her talking doll operated and the mechanical design of toy cars. She let her curiosity get the best of her and pursued her passion for electronics engineering.

Now, Dr. Davoudpour is a FAST professor at Humber College and smashing the glass ceiling as an inspiring role model for young female engineers and the FIRST female Chair of IEEE Toronto since the chapter was founded in 1903.

She shares her engineering journey and advice for women in science in this [Q&A feature story](#).



### WOMEN IN LEADERSHIP: EQUITY, DIVERSITY AND INCLUSION

In celebration of International Women's Day, FAST is hosting "Women in Leadership: Equity, Diversity and Inclusion" Thursday, March 10 from 4 pm to 5 pm.

The event is an opportunity to explore how COVID-19 has shifted our professional lives and bring together professional women, many of which are members of the academic community, the IEEE, the GYBO robotics network, and the industry.

Keynote speaker Dr. Azadeh Yadollahi, will talk about her journey towards Inclusion, Diversity, Equity, and Accessibility.

Please confirm your attendance by registering [here](#).

**WOMEN IN LEADERSHIP**  
Equity, Diversity and Inclusion  
In celebration of international women's day

March 10, 2022  
4 PM to 5 PM

**HUMBER**  
kite UHN

**IEEE TORONTO**  
Section  
Advancing Technology and Humanity since 1903

**GYBO Robotics Network**

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## FAST MILESTONES

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

**1 year** Wei Zhang



## FACULTY OF APPLIED SCIENCES & TECHNOLOGY

### UPCOMING EVENTS

#### MARCH

National Engineering Month

For more information visit <http://nemontario.ca>

#### MARCH 5 & 6

First Robotics Live Campus Event

#### MARCH 8

International Women's Day

#### MARCH 10 AT 4:00 PM

Women in Leadership series

For more information, please contact

[Dr. Maryam Davoudpour](mailto:Dr. Maryam Davoudpour)

#### MARCH 23

National Co-op Day Celebration

For more information, please contact [Janice Wojcik](mailto:Janice Wojcik)

#### MARCH 24

FAST Scholarship Celebration

For more information, please contact [Janice Wojcik](mailto:Janice Wojcik)



## 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](mailto:julie.pasquin@humber.ca)

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Julie Pasquin  
Office of the Senior Dean