

# ONTARIO TECH UNIVERSITY

CLASS OF 2020 CONVOCATION



FACULTY OF ENERGY SYSTEMS AND NUCLEAR SCIENCE





**VIRTUAL CONVOCATION CEREMONY**

**ONTARIO TECH UNIVERSITY**

**WEDNESDAY, JUNE 23, 2021**



**CONGRATULATIONS  
GRADUATES!**



# CONVOCATION CELEBRATES THE SUCCESS OF OUR STUDENTS—THEIR SUCCESS AT ONTARIO TECH AS WELL AS THE ACCOMPLISHMENTS THEY WILL ACHIEVE IN THE FUTURE.

---

**We can all take great pride in this moment.** After all, each of us—parents and friends, professors, academic advisors, members of the board—has helped to ensure the academic success of our students.

Although we're celebrating in a different format than past Convocations, our sentiment remains the same. We're proud of our students and we know they're well equipped to meet the challenges of today and in the future.



# CHANCELLOR

The Chancellor serves as the titular head of the university, presiding over Convocation and conferring all degrees, honorary degrees, certificates and diplomas on behalf of the university.

The Chancellor advocates for the university's vision as endorsed by the Board of Governors, and is an essential ambassador who advances the university's external interests.

## CHANCELLOR INSTALLATION

Chancellor Frazer's leadership in education, combined with his passion for students, brings an engaging spirit to our campus community. His enthusiasm for mentoring students, coupled with his philanthropic experience has, and will continue to, greatly benefit Ontario Tech. Mr. Frazer advocates for the pursuit of tech with a conscience, which includes supporting tech startups in Canada.

Mr. Frazer is a distinguished Toronto-based lawyer, who is a partner and the chair of the Pensions and Employment Practice at international business law firm, Torys LLP. His extensive involvement in education at all levels includes establishing the National Institute on Ageing at Ryerson University's Ted Rogers School of Management, as well as serving as an Adjunct Professor with both the University of Toronto's Faculty of Law and at York University's Osgoode Hall Law School. He is the immediate past chair of the Toronto French School (TFS) Board of Directors and a former member of the Board of Trustees of the Ontario Science Centre.

Mr. Frazer demonstrates his commitment to philanthropy as chair of both the North York General Foundation Board and of the TFS Foundation Board and he is a member of the SickKids Foundation Campaign Cabinet. He has also helped establish a number of university scholarships and awards.

After graduating from York University with a Bachelor of Arts degree, Mr. Frazer received his Master of Arts degree from Brock University. He also holds a Bachelor of Law degree from Western University and a Master of Business Administration degree from Wilfrid Laurier University.

Mr. Frazer's awards and recognitions include Wilfrid Laurier University's MBA Outstanding Executive Leadership Award; Western University Law School's Ivan Rand Alumni Award; the Queen Elizabeth II Diamond Jubilee Medal; the Ted Rogers School of Management Honorary Alumni Award; and the Ontario Bar Association's Award of Excellence in Pension and Benefits Law. In 2019, Canadian Law Magazine named him one of the 25 most influential lawyers in Canada.

Mr. Mitch Frazer became Ontario Tech University's fourth Chancellor on May 1, 2020.

### Previous Ontario Tech University Chancellors

- Noreen Taylor (2016-2020)
- The Honourable Perrin Beatty (2008-2015)
- Lyn McLeod (2004-2008)

### 2019 - 2020 Members of the Board of Governors

Mitch Frazer, <i>Chancellor</i> (effective May 1, 2020)	Owen Davis
Noreen Taylor, <i>Chancellor</i> (until April, 30 2020)	Laura Elliott
Doug Allingham, <i>Chair</i>	Francis Garwe
Nigel Allen, <i>Vice-Chair</i>	Ferdinand Jones
Dietmar Reiner, <i>Vice-Chair</i>	Kori Kingsbury
Steven Murphy, <i>President and</i> <i>Vice-Chancellor</i>	Thorsten Koseck
Liqun Cao	Dale MacMillan
Kevin Chan	Mark Neville
Stephanie Chow	Maria Saros
	Trevin Stratton
	Jim Wilson
	Lynne Zucker

# MESSAGE FROM THE CHANCELLOR

---

Congratulations to the class of 2020. You put in the time, effort and dedication to cross the finish line and you have graduated. This is your moment, an opportunity to celebrate your time at Ontario Tech University, and to share this important milestone with those who have helped you along the way.

*“ I encourage you to remember your purpose and the lessons you have learned during your time at Ontario Tech. Continue to push forward, one step at a time. You have crossed the finish line, and we know you will do great things.”*

Reaching this milestone has not been without its challenges. When you embarked on your university journey, you could not have predicted how the world would change so quickly and so drastically, requiring you to adapt to new ways of learning. Your perseverance, along with the work of the university's caring faculty and staff, shows we can accomplish great things even under trying circumstances.

The knowledge and experience you have gained now positions you to lead. Your degree symbolizes your entrepreneurial skills, your flexibility to take on new challenges, and your adaptability to technological change.

When I accepted the position as Chancellor, I did it because I wanted to channel my experience to help out this university's students and alumni—namely, you.

You, our changemakers and future innovators.

You, who have stepped out into the world and are already making a positive impact.

You, who are dedicated to improving the lives of others, our environment, and our community.

Challenges or roadblocks will inevitably arise. I encourage you to remember your purpose and the lessons you have learned during your time at Ontario Tech. Continue to push forward, one step at a time. You have crossed the finish line, and we know you will do great things.

On behalf of the Board of Governors, I offer my warmest congratulations and best wishes.



A handwritten signature in blue ink that reads "Mitch Frazer". The signature is cursive and fluid.

Sincerely,  
Mitch Frazer  
Chancellor

# MESSAGE FROM THE PRESIDENT AND VICE-CHANCELLOR

---

Congratulations graduates of 2020.

As you celebrate today's achievement, make sure you take a moment to thank those who have supported your success—your friends, your parents, your roommates, maybe even your boss at your work placement. Your achievements belong to you, but they were undoubtedly aided by others.

*“Today you join an exclusive community of Ontario Tech alumni, people making extraordinary contributions in the workplace and in academia.”*

That is certainly the case at Ontario Tech, where we work with industries, companies and institutions like the City of Oshawa to re-imagine learning. I hope that your participation in experiential learning, research projects and volunteer opportunities (even the virtual ones) have given you the skills needed to address our world's complex challenges.

You and your colleagues have done some great things during challenging times. Several grads from our Nursing program have joined the frontlines of the fight against COVID-19. Others have applied their knowledge to research, like the unique waste treatment sampling done by our university's researchers. Still others have developed innovative ways to conduct business, educate youth and provide community-based social services during a pandemic.

I am truly proud that this university's successes extend beyond the classroom. Your colleagues in student-athletics and in other groups made positive impacts in our community. You may remember that, in the fall of 2019, our hockey team partnered with our university's Indigenous Education and Cultural Services group, along with external partners, to donate used hockey equipment and winter clothing to those living in isolated or remote fly-in communities in Northern Ontario. You also saw peer support

groups, clubs and societies foster equity, diversity and inclusion during Treaties Week, Pride Month, and Black History Month. These initiatives and many others demonstrate how we as a university can work together, even when forced to stay apart physically.

Today you join an exclusive community of Ontario Tech alumni, people making extraordinary contributions in the workplace and in academia. Based on your accomplishments over the past few years, I know you will do well.

On behalf of our entire university community, congratulations and best wishes. I know you will continue to make us proud!



A handwritten signature in blue ink, appearing to read 'Steven Murphy'.

Sincerely,  
Dr. Steven Murphy  
President and Vice-Chancellor



# MESSAGE FROM THE PROVOST AND VICE-PRESIDENT, ACADEMIC

---

On behalf of the university's Academic Team—the deans, professors, lecturers, lab technicians and advisors who form the heart of this university—I am thrilled to share our heartfelt congratulations with you, our 2020 graduates.

My research area focuses on teams and sport officials, and often I look at our students' academic journey through that lens. I see students supplementing their learning with clubs, societies and athletics. I watch undergraduate students working alongside faculty members, pursuing innovative projects and research. I witness students engaging in university governance. This all confirms that university is a place where you are taught by experts, but also where you absorb lessons about ethics, judgement and critical thinking—about what is possible, as well as about what is right.

You now take that knowledge and wisdom with you. You have demonstrated your flexibility and responsiveness to new ways of learning through virtual classes, online tutorials, labs and meetings. You have shown yourself to be tech-savvy, resourceful and driven. Now you have an opportunity to join a world that needs graduates like you: people with skilled talent and smart in the ways of life.

Your education at Ontario Tech positions you uniquely to meet the world's needs. We look forward to watching out for you, as you show yourself to be a changemaker in areas that marshal your expertise and inspire your passion.

*“We look forward to watching out for you, as you show yourself to be a changemaker in areas that marshal your expertise and inspire your passion.”*

I invite you to stay connected with Ontario Tech through your Alumni Association and be sure to share your future successes with us. And remember, your university will always be here to support you.

Once again, congratulations on a job well done, and best wishes for your future!



A handwritten signature in blue ink, which appears to be "L. Livingston". The signature is fluid and cursive.

Sincerely,  
Dr. Lori A. Livingston  
Provost and Vice-President, Academic



## HONORARY DEGREES

Honorary degrees recognize persons who have made an outstanding intellectual and/or scholarly contribution in their chosen field of academic eminence; provided outstanding service and/or contributions to greater society through non-academic achievements and/or public service; or made major contributions in areas relevant to the mission of the university and/or to Durham Region/ Northumberland County.

The President selects the honorary degree recipients upon the recommendation of the Honorary Degrees Committee, following an open call for nominations that takes place in the fall of each year. This year the university will award the following honorary degrees:

### **DOCTOR OF LAWS, HONORIS CAUSA (LLD)**

Awarded for outstanding achievement in social sciences in the broadest sense, or significant community contributions at the local, national or international levels.

## HONORARY DEGREE RECIPIENTS

### **The Right Honourable David Johnston and Mrs. Sharon Johnston**



For their dedicated service to Canada, their outstanding leadership as scholars, educators and public servants, and for their philanthropic example, the university confers proudly upon The Right Honourable David Johnston, CC, CMM, CD, and on Mrs. Sharon Johnston, CC, the honorary degrees of Doctor of Laws, honoris causa.

Just prior to his installation as Canada's 28th Governor General in 2010, The Right Honourable David Johnston was granted a personal coat of arms. The symbols on that coat

of arms define the lives and contributions of both Mr. and Mrs. Johnston.

The coat of arms contains connective elements that symbolize the central role of family, voluntarism and other relationships in their lives. An image of five books refer to their five daughters, as well as to their respective graduate degrees in law and in science. A lit candle conjures enlightenment and the transmission of knowledge. A pair of unicorns symbolize dreams, imagination, purity and faithfulness. A pair of winged feet symbolize travel, even as they evoke fitness and sports. A banner of zeros and ones conjure the learning and innovation of the modern digital world that continues to inspire the Johnstons. Finally, the motto on the coat of arms *Contemplantur Meliora* invites optimism, entreating the world “to envisage better things”.



Learning and innovation. Philanthropy. Volunteerism. Families and children. Optimism. All words that epitomize the life and work of Mr. and Mrs. Johnston.

The Johnstons met in Sault Ste. Marie, Ontario and became high school ‘sweethearts’. After high school, Mr. Johnston headed directly to Harvard University where he excelled both in-class and on the ice. He was twice named all-American in hockey and inducted to Harvard’s Athletic Hall of Fame. Graduate degrees from the University of Cambridge and Queen’s University followed, leading into his 45-year career as a Professor of Law. He served multiple terms as Principal of McGill University and President of the University of Waterloo, and chaired several dozen provincial and federal task forces and committees. He was the first non-U.S. citizen to be elected chair at Harvard University’s Board of Overseers.

In 2010, Her Majesty Queen Elizabeth II named Mr. Johnston as Canada’s 28th Governor General; his nearly eight years of service ranks him among Canada’s longest-serving Governors General.

Mrs. Johnston studied physiotherapy and occupational therapy at the University of Toronto and Western University, before obtaining her doctorate in Rehabilitation Science from McGill University. She enjoyed an illustrious career in rehabilitation science, widely known for her steadfast commitment to mental health and wellness advocacy. She has also been lauded for her dedication to supporting Indigenous youth and families. Beyond her public service work, Mrs. Johnston has distinguished herself both as a writer of historical fiction and as manager of a dressage training centre; she continues to ride her horse three times per week.

During Mr. Johnston’s term as Governor General, he established the Rideau Hall Foundation, a registered charity that supports and amplifies the Office of the Governor General in its work to connect, honour and inspire Canadians. The Johnstons continue to shepherd the foundation’s work.

“ Learning and innovation. Philanthropy. Volunteerism. Families and children. Optimism. All words that epitomize the life and work of Mr. and Mrs. Johnston. ”

Mr. Johnston was appointed Officer of the Order of Canada in 1988 and promoted to Companion in 1997. Mrs. Johnston was appointed Companion of the Order of Canada in 2010. In their post-vice-regal lives, the Johnstons now share—with fourteen grandchildren and with Rosie, their Chesapeake Bay Retriever—a farm west of Ottawa.

In their work, both public and philanthropic, they evince the promise of the Johnston coat of arms—namely to foster a more just and enlightened world; to create a smarter and more caring nation; and to invite all Canadians to “envisage better things”.

**THE UNIVERSITY'S  
CHANCELLOR,  
MR. MITCH  
FRAZER,  
OFFICIALLY  
CONFERRED  
THE DEGREES  
OF THE CLASS  
OF 2020 IN  
ABSENTIA.**

**TODAY, WE  
PUBLICLY  
RECOGNIZE  
OUR GRADUATES  
WITH A VIRTUAL  
CEREMONY.**

---

## **ORDER OF PROCEEDINGS**

**Processional**

**Opening of Convocation**

**Chancellor's Address**

Mitch Frazer, Chancellor

**President's Address**

Steven Murphy,

President and Vice-Chancellor

**Conferral of the Honorary Degree**

Mitch Frazer, Chancellor

**Address to the Graduands**

Honorary Degree Recipient

**Conferral of Degrees**

Mitch Frazer, Chancellor

**Closing of Convocation**

**Receptions**

## **CONFERRAL OF THE DEGREE**

The Convocation ceremony has its roots in ancient traditions. It is rich in academic conventions and symbols that carry special significance and meaning. In present day, these traditions are seen in the colourful academic dress and the customs that are observed throughout the ceremony, which serve to honour the achievements of the graduates and recognize their new role and obligations as members of their respective disciplines, fields of study and the alumni community. The Provost presents the degree candidates to the Chancellor, who then confers the degree.

Wednesday, June 23, 2021

Doctor of Philosophy  
Master of Applied Science  
Master of Engineering  
Graduate Diploma

Bachelor of Engineering (Honours)  
Bachelor of Engineering and Management  
(Honours)  
Bachelor of Science (Honours)

## DOCTOR OF LAWS, HONORIS CAUSA

The Right Honourable David Johnston  
Sharon Johnston

## DOCTOR OF PHILOSOPHY, NUCLEAR ENGINEERING

Terry James Price  
Thesis Title: A Benchmarked Dynamic Model of  
Xenon Behavior in a Molten Salt Reactor  
Kelvin Seto  
Thesis Title: The Influence of Surface Tension on  
F2-Bubble Morphology at Detachment from Carbon  
Electrodes in KF-2HF Molten Fluoride Salt

## MASTER OF APPLIED SCIENCE, NUCLEAR ENGINEERING

Arvind Logesan Dhinakar  
Daniel Bryan Hallatt  
Marta Kocemba  
Yi Mi  
Sarah Giselle Watt  
Wei Chung Wong

## MASTER OF ENGINEERING, NUCLEAR ENGINEERING

Ammar Jamil Bhatti  
Taeseok Kang  
Gleen Pearl Martin  
Sangeeth Ragnathan

## GRADUATE DIPLOMA, NUCLEAR DESIGN ENGINEERING

Grace You Yang Li  
Gregory Simioni  
Krunal Alkeshkumar Vyas  
Mengying Xie

## GRADUATE DIPLOMA, NUCLEAR TECHNOLOGY

Dhananjaya Baduge  
Nicholas Frank Bruno  
Ferhat Ali Comert  
Kevin da Silva  
Chad Dominic Miles Davis  
Yohann Francis Fernandes  
Michael Joseph Filipe  
Devon Clair Gilbert  
Francesco Daniel Gisonni  
Philip William Hetzel  
Nenad Majumder  
Mark Cameron Manning  
Megan Evelyn McMillan  
Daniel John Mikulic  
Makenzi Jayde Mitchell  
Saeed Ali Mungai  
Zena Rebello  
Said Roubi  
Saloni Sabharwal  
Steven Sahakian  
Heeyeon Seo  
Joel Smith



## **BACHELOR OF ENGINEERING (HONOURS), NUCLEAR ENGINEERING**

Raoul Leonard Aranha  
Osama Baig  
Iman Farhad Basha ★★  
Gabriel Betlen  
Alex Gwilym Biancaniello ★  
Benjamin Andrew Terrell Breeden ★  
Kaitlyn Brown  
Haseeb Syed Ali Bukhari  
Jarret Walter Burgener  
Connor Craig  
Jordan Layne Crowell ★★  
Faculty Medal  
Alfredo Cuesta Leyva ★★  
Michael Davis ★  
Peter Gillespie ★  
Keiver Antonio Goodwin  
Anojan Kathiramalairajah  
Sebastjan Kondi ★★  
Andy Laya  
Zhe Li  
Qing Yuan Liang  
Linval Alexander Lindsay  
Michael Thomas Mai  
Saalik Jameel Masood  
Samantha Alyssa McKee ★  
Harisankar S. Nair  
Rashid Ahmad Nasir Ahmad  
Stephanie Magda Nistor  
Muhammad Saad Noor  
Mayur Nareshkumar Patel  
Alborz Rezapoor  
Geoffrey Ruytenbeek ★★  
Sriram Saravanabavan  
Attika Sarwar  
Aaron Charles Savage  
Karishma Seepaul  
Rabia Shumail  
Inderpal Sidhu  
Benjamin Lalbahadur Singh  
Julia Diane Smith  
Emily Victoria Spicer ★  
Sean Alexander Stepanow

Eyad Tamimi ★★  
Glen Adam Trewin  
Alexander Jacob Van Es  
Jace Freeman Winder  
Muhammad Sami Yar Khan

## **BACHELOR OF ENGINEERING AND MANAGEMENT (HONOURS), NUCLEAR ENGINEERING**

Tyra Jacqueline Gordon

## **BACHELOR OF SCIENCE (HONOURS), HEALTH PHYSICS AND RADIATION SCIENCE**

Hanan Ghaed M. Alenezi  
Ahmed Mohammed A. Alsaeed  
Mohammed Ahmed Alwabari  
Anne Lakmali Hiroko Roshani Nicholas  
Brendan Leo Sheehan  
Elilarasi Skanthakumar







## DISTINCTIONS

Undergraduate students who have achieved a cumulative grade point average (GPA) of 3.8 or higher for the courses required for their degree will have the words with Highest Distinction added to their degree parchment and to the degree notation on their transcript. Undergraduate students who have achieved a cumulative GPA of 3.5 to 3.79 for the courses required for their degree will have the words with Distinction added to their degree parchment and to the degree notation on their transcript.

## FACULTY MEDALS

Faculty medals are awarded annually by each faculty to the student graduating from an undergraduate program who has achieved the highest cumulative GPA in the courses required for their degree, as approved by the dean of the faculty. To be considered, students must have completed at least half the course requirements at the university and have achieved a cumulative GPA of 3.5 or higher.

### **FACULTY OF BUSINESS AND INFORMATION TECHNOLOGY**

Omar Naim Minawi

### **FACULTY OF EDUCATION**

Sarah Kathleen McConnell

### **FACULTY OF ENERGY SYSTEMS AND NUCLEAR SCIENCE**

Jordan Layne Crowell

### **FACULTY OF ENGINEERING AND APPLIED SCIENCE**

William James Collings

### **FACULTY OF HEALTH SCIENCES**

David George Muller

Emily Lowry

### **FACULTY OF SCIENCE**

Intisar Qamar

Sivim Sohail

### **FACULTY OF SOCIAL SCIENCE AND HUMANITIES**

Sean Isaacs

# OUTSTANDING THESIS AWARDS

Outstanding Thesis Awards recognize a student graduating from a thesis-based master's program and a student from a thesis-based doctoral program whose thesis has made, or is expected to make, a significant contribution to their field of study. To be considered, students must meet the following criteria:

- Cumulative GPA of 3.7 or higher.
- Received an outcome of Acceptable without Required Revisions or Acceptable with Minor Revisions at their thesis defense.
- No academic offenses on their record.

## 2020 OUTSTANDING MASTER'S THESIS AWARD RECIPIENT

**Samantha Nicole Stahlke**

Thesis Title:

Synthesizing Play: Exploring the Use of Artificial Intelligence to Evaluate Game User Experience

Master of Science, Computer Science

## 2020 OUTSTANDING DOCTORAL THESIS AWARD RECIPIENT

**Deepak Ronanki**

Thesis Title:

High Performance Modulation and Computationally Efficient Control of Modular Multilevel Converters for High Power Traction Motor Drives

Doctor of Philosophy, Electrical and Computer Engineering

# GOVERNOR GENERAL'S ACADEMIC MEDALS

The Governor General's Academic Medal was first awarded in 1873 by the Earl of Dufferin and has since become one of the most prestigious awards a student in a Canadian educational institution can receive. The Governor General's Academic Medals are awarded for academic excellence at four levels:

- Bronze at the secondary school level.
- Collegiate bronze at the post-secondary, diploma level.
- Silver at the undergraduate level.
- Gold at the graduate level.

To maintain a spirit of universality across the country, the directives were designed to ensure the medals are awarded on academic marks only, regardless of the intangible qualities of students' lives, such as good citizenship, moral behaviour or popularity. The medal can be awarded to only one student.

### Gold Medal

The gold medal is awarded annually to the student graduating from a graduate-level program who has achieved the highest cumulative GPA for the courses required for their degree, as approved by the Admissions and Scholarship Committee. To be considered, students must have a cumulative GPA of 3.8 or higher.

## 2020 GOVERNOR GENERAL'S GOLD MEDAL RECIPIENT

**Samantha Nicole Stahlke**

Master of Science, Computer Science

### Silver Medal

The silver medal is awarded annually to the student graduating from an undergraduate program who has achieved the highest cumulative GPA for the courses required for their degree, as approved by the Admissions and Scholarship Committee. To be considered, students must have completed a minimum of 60 credit hours at the university and have achieved a cumulative GPA of 3.8 or higher.

## 2020 GOVERNOR GENERAL'S SILVER MEDAL RECIPIENT

**Intisar Qamar**

Bachelor of Science (Honours), Biological Science



# AWARDS FOR TEACHING EXCELLENCE

The university recognizes instructors who have demonstrated excellence in teaching. These awards distinguish those who have significantly enhanced the quality of learning for students through innovation and commitment, by fostering new instructional practices and learning activities, and through engagement in the scholarship of teaching and learning.

## TEACHING EXCELLENCE FACULTY AWARD

Recognizes a faculty member who demonstrates sustained and superior achievement in undergraduate and/or graduate teaching, as well as educational innovation, research and leadership.

**Elita Partosoedarso, PhD**

Associate Teaching Professor,  
Faculty of Health Sciences

## EARLY CAREER TEACHING AWARD

Recognizes a faculty member in early stages of their teaching career, and who demonstrates a passion for teaching and engagement, both inside and outside of the classroom.

**Robyn Ruttenberg-Rozen, PhD**

Assistant Teaching Professor, Faculty of Education

## TEACHING ASSISTANT EXCELLENCE AWARD

Recognizes a teaching assistant who demonstrates superior commitment to their subject matter and to their students through effective teaching.

**Lidya Salim**

Teaching Assistant, Faculty of Science

## STUDENT CHOICE AWARD

Recognizes instructors selected by students from online course feedback and surveys.

**Murat Aydin, PhD**

Sessional Instructor,  
Faculty of Engineering and Applied Science

**Razgar Rahimi, PhD**

Sessional Instructor,  
Faculty of Engineering and Applied Science  
In memoriam

## TIM MCTIERNAN STUDENT MENTORSHIP AWARD

Recognizes an individual who consistently demonstrates a passion for supporting student success, an ability to inspire personal and professional growth, and an outstanding commitment to promoting the university's values.

**Sharon Lauricella, PhD**

Associate Professor and Program Director,  
Faculty of Social Science and Humanities

## LEARNING REIMAGINED AWARD

Recognizes innovative teaching practices that support student success. Instructors who demonstrate unique and original solutions to specific problems of practice in their classes.

**Joseph MacMillan, PhD**

Associate Teaching Professor, Faculty of Science

## OPENNESS IN EDUCATION AWARD

Recognizes collaborative open practices to encourage access and reduce barriers to excellent post-secondary education.

**Group: Mihai Beligan** (Associate Teaching Professor),  
**Paula Di Cato** (Associate Teaching Professor), **Ilona Kletskin** (Senior Teaching Professor), **Azar Shakoori** (Associate Teaching Professor)  
Faculty of Science



# ABOUT ONTARIO TECH UNIVERSITY

Modern and forwarding-thinking, Ontario Tech University advances the discovery and application of knowledge to accelerate economic growth, regional development and social innovation. We inspire and equip our students and graduates to make a positive impact in a tech-focused world.

We believe it's not only about developing the next tech breakthrough. Understanding and integrating the social and ethical implications of technology are our key differentiator.

We adapt to the ever-changing educational landscape by experimenting with the most effective ways to deliver flexible and dynamic learning, giving more choices to more people. By offering a range of credentials and experiential learning opportunities, and sparking entrepreneurship activities, we provide learner-centred educational options.

Our students enjoy a stimulating campus life experience that includes hundreds of clubs, cultural and community events, recreational opportunities and a growing varsity athletics program featuring basketball, badminton, curling, dance, golf, hockey, rowing, soccer, and women's lacrosse.

In addition to excellence in teaching, we offer our students experiential learning opportunities through internships, co-ops, practicums, research projects and more. In fact, 85 per cent of upper-year undergraduate students participate in experiential learning.

We collaborate with industry, community, government and academic organizations, bringing them together with our researchers and students to uncover innovative solutions for our partners' most pressing problems. The home to more than 80 specialized research laboratories and facilities, we're committed to attracting passionate and capable scholars to our high-tech campus.



***The university is proud to acknowledge the lands and people of the Mississaugas of Scugog Island First Nation, which is covered under the Williams Treaties. We are situated on the Traditional Territory of the Mississaugas, a branch of the greater Anishinaabeg Nation, which includes Algonquin, Ojibway, Odawa and Pottawatomi.***



# THE UNIVERSITY COAT OF ARMS



The Coat of Arms was granted to the university on July 15, 2009 by Claire Boudreau, Chief Herald of Canada under the authority of the Governor General of Canada. The Coat of Arms offers a graphic representation of important facets of the university, as well as its history, values and achievements.

It highlights the university's ties to the regional, national and worldwide communities from which the university draws its mission and purpose. The university reserves the use of the Coat of Arms for commemorative and ceremonial purposes.

The Coat of Arms consists of a shield, a crest, supporters and a motto. The shield, at the centre of the arms, contains three elements: an open book, a canoe and a division line.

The open book denotes an institute of higher education. The inverted canoe alludes to intellectual exploration and signifies the university's location in Oshawa, which means portage or carrying place. The division line represents energy, innovation and community.

Atop the crest a falcon perches with its head facing forward to see the world as it is and to find ways to make a difference. The falcon, a symbol of leadership and persistence, holds a thunderbolt with flames at the top and bottom. Lightning bolts crossed behind the falcon emphasize the importance of technology. Thoroughbred horses flank the shield to reference Windfields Farm, which was located directly north of the university, and famed for breeding champion racehorses. As an official symbol of Canada, the horses also represent excellence, energy and agility. They stand on a mound of grass set with trillium flowers as a reference to Ontario. The university motto, *Cogitando et Agendo Duceamus*, means by thinking and doing, we shall lead.



## THE UNIVERSITY MACE

The mace symbolizes the authority, independence and responsibility of the university as a protector, creator and facilitator of knowledge. It is carried before the President and Vice-Chancellor, and the Chancellor in the Academic Procession and rests on its stand throughout the ceremony.

The mace was unveiled at Convocation in 2007. Designed and crafted by Beth Alber, Associate Dean, Faculty of Design at OCAD University in Toronto, Ontario, it consists of a strong handle of carved cherry wood, an elegant and hardy tree native to southern Ontario. Rings of polished quartz and sodalite, in the university's colours, top the wood. The handle supports a crown of silver in the form of an abstracted flower bud, which is intended to be a reminder of our unending responsibility to nurture, protect and celebrate academic achievement among students, faculty and staff. The surfaces of the petals are etched with the microscopic imprint of a poplar leaf, as a symbol of hope and endurance. The mace is supported by a base of Belmont Rose granite from a quarry in the Kawartha Lakes region, representing the foundation of knowledge and our interdependence with the surrounding community.

# GONFALONS

The gonfalon, a flag that hangs from a crosspiece or frame, originated in the medieval republics of Italy as an ensign of state or office. Universities from around the world have adopted gonfalons and they use them during Convocation ceremonies to symbolize the different academic areas within the university. The eight gonfalons displayed at the university's Convocation ceremonies represent the university and its seven faculties. Gonfalon carriers march at the head of their faculty during the procession, followed by the students who will graduate from each of the faculties during the ceremony.



University of Ontario Institute of Technology



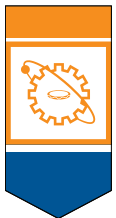
Faculty of Business and Information Technology



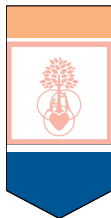
Faculty of Education



Faculty of Energy Systems and Nuclear Science



Faculty of Engineering and Applied Science



Faculty of Health Sciences

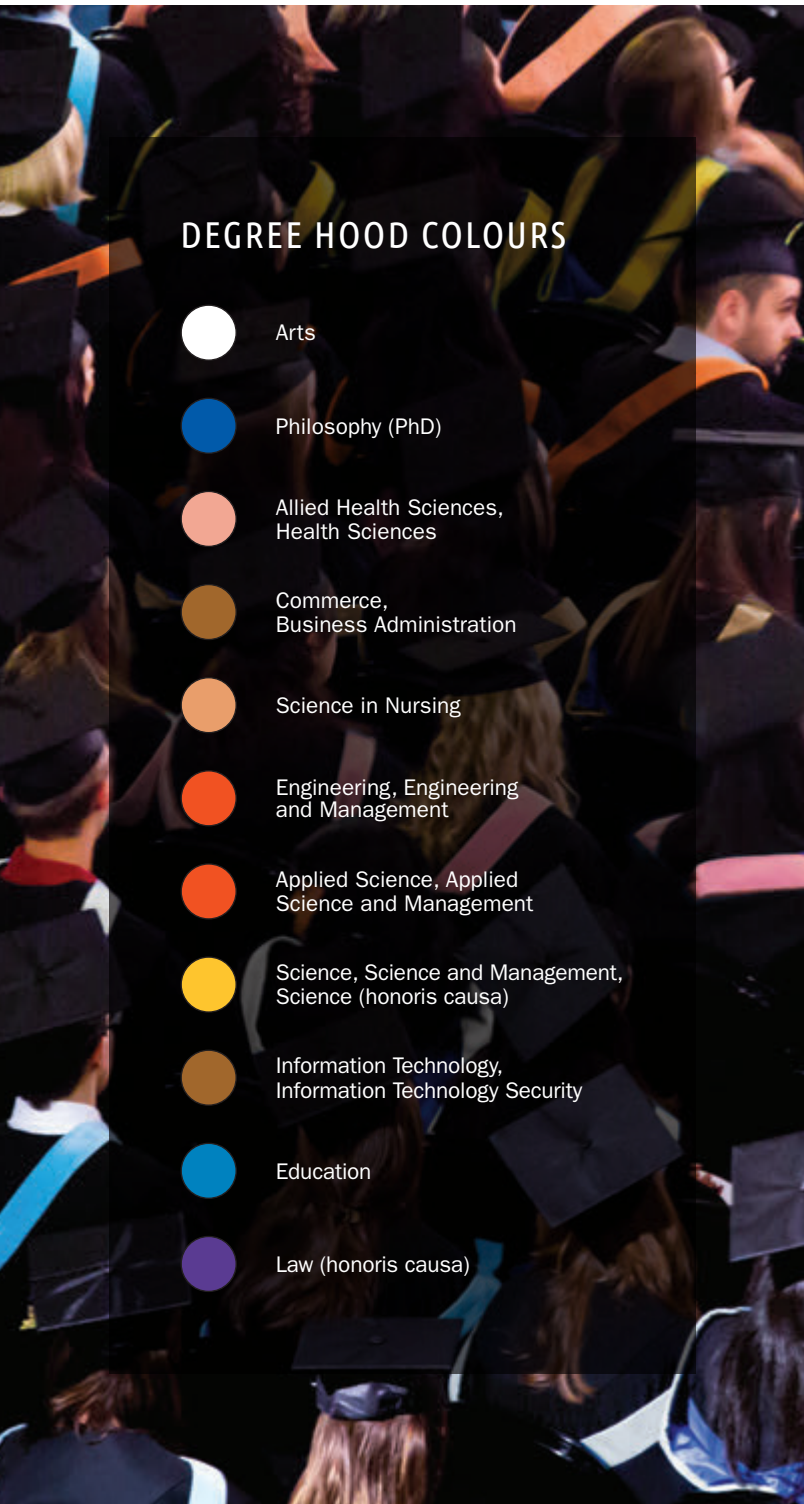


Faculty of Science



Faculty of Social Science and Humanities





## DEGREE HOOD COLOURS

- Arts
- Philosophy (PhD)
- Allied Health Sciences, Health Sciences
- Commerce, Business Administration
- Science in Nursing
- Engineering, Engineering and Management
- Applied Science, Applied Science and Management
- Science, Science and Management, Science (honoris causa)
- Information Technology, Information Technology Security
- Education
- Law (honoris causa)

## ACADEMIC REGALIA

The colourful academic dress worn in the Convocation ceremony was introduced more than 600 years ago. At the university, all graduates wear a gown, with a cap and hood. The gowns of bachelor's and master's graduates are black. The gowns of doctoral graduates are dark blue and trimmed in light blue. Mortarboards are worn by bachelor's and master's graduates, and velvet bonnets are worn by doctoral graduates. The hoods of bachelor's and master's graduates are black and the hoods of the doctoral graduates are dark blue. All degree hoods have an inside lining of royal blue as the colour of the university. The colour of the velvet trim on the hoods is distinctive of the degree that has been earned by the graduate. Graduate diploma recipients wear a black bachelor's gown.

The Chancellor and President and Vice-Chancellor wear gowns that are distinctive of the positions they hold in the university community. University governors who participate in the Convocation ceremony wear a gown and sash distinctive of the Board of Governors. University officers, faculty and staff who participate in the Convocation ceremony wear the academic dress distinctive of the institution from which they graduated and the degree they received. If the institution's colours are not available, participants will wear a black gown.





## MESSAGE FROM THE ALUMNI ASSOCIATION

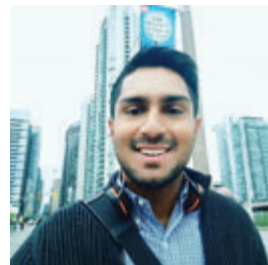
Congratulations, class of 2020! On behalf of the Alumni Association, I congratulate you on persevering through all the challenges you've encountered throughout your university career. Today, we celebrate your achievements and welcome you to our alumni family.

*“ Today we celebrate your achievements and welcome you to our alumni family. ”*

As you've discovered, convocation isn't the end of your relationship with the university; it's only the beginning. Our Alumni Association is committed to helping you succeed throughout your life and offers a wide variety of in-person and virtual programs, events and services. I encourage you to visit our Alumni website ([ontariotechu.ca/alumni](http://ontariotechu.ca/alumni)) to learn about the benefits available to you. We also hope you stay in contact with us through our social media channels so we can help you celebrate all your accomplishments to come!

Alumni are the university's greatest ambassadors. Our network of more than 22,000 graduates are already making an impact in all industries and communities across our country and around the world. I hope you will join me in staying engaged with our university by sharing your experiences with the students of tomorrow.

Congratulations! We look forward to meeting you at our next alumni event.



**Shaikh Farhan Rashid**  
Faculty of Business and Information Technology,  
class of 2014

Chair, Alumni Association Council, 2020



For an alternative format of this information, contact [marketing@ontariotechu.ca](mailto:marketing@ontariotechu.ca).

© University of Ontario Institute of Technology 2021. Ontario Tech and Design, and Tech with a Conscience are Official Marks of Ontario Tech University. D5161



