

2017-2018

# Leadership, Innovation and Community



 **UNIVERSITY  
OF ONTARIO**  
INSTITUTE OF TECHNOLOGY  
OSHAWA | CANADA 

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# SMART, YOUNG AND FOCUSED



Like our 10,000 students, this university is smart, young and focused. We think ahead. When it comes to technology we prepare for what comes next, whether that means developing artificial intelligence software or anticipating its social impact. We're proud of our accomplishments, and believe our best days lie ahead. We're focused on making a positive impact, in academia, in research, in business and in our communities.

In fact, if UOIT was a student, here's what our transcript might say:

- We're technologically skilled and inquisitive about how advances in knowledge affect our economic competitiveness and our communities.
- We specialize in market-relevant areas like large-data analysis, advanced robotics, computational research and nuclear power generation.
- We work well with others, partnering with more than 400 businesses, industries and community organizations.
- We excel at on-the-job learning. Eighty-five per cent of our students participated in substantial work-integrated learning experience before they graduated.
- We get an A in innovation: Our entrepreneurial mindset makes us home to some of Canada's top researchers, including 11 Canada Research Chairs, as well as award-winning student and faculty entrepreneurs.

For 15 years we have stayed true to our original mission to seek out new ideas, to innovate and to specialize.

We have developed more than 100 programs focused on fulfilling market needs, on tackling complex industrial and societal challenges, and on solving real-world problems.

We invite you to join a conversation with one of Canada's newest, smartest and most technology-focused universities.

# SUCCESSFUL STUDENTS



## Graduate Students

In 2005, 10 students enrolled in the university's first graduate program, the Master of Information Technology Security. Today, the rapidly growing School of Graduate and Postdoctoral Studies offers more than 40 Master's and doctoral programs and has produced more than 1,200 graduates.

The school has become a "home on campus" for postdoctoral fellows like **Lalit Patnaik**. Since he joined the university's Smart Transportation Electrification and Energy Research group, he says he has found immensely satisfying research and teaching opportunities.

**Ryan LePage**, who is completing a Master of Arts in Criminology, also has found research opportunities outside his thesis project, gained experience as a Teaching Assistant, and worked in partnership with several community organizations. His research is pointing him toward work related to hate crimes and right-wing extremism.



## With Forensics Like This...

Each April, fourth-year Forensic Science students cap off their program by showcasing research from their 'Capstone' projects for industry experts during Forensic Science Research Day. This year's graduating class shared discoveries about everything from underwater crime scenes to tricky DNA recovery. The eminent industry experts included **Monica Sloan**, one of Ontario's longest-serving forensic biologists.



## Three Minutes of Fame

**Ololade Sanusi**, an Electrical and Computer Engineering PhD candidate, became the first student from the university to advance to the national Three Minute Thesis competition. Competitors present complex theses in an approachable three-minute video. Sanusi's entry describes research into new blood sterilization systems, and her success reflects her excellence both as a researcher and as a research communicator.

## Data Flow

Software Engineering graduate **Mohamad Vedut** uses artificial intelligence to manage water resources more effectively. His Ontario-based startup company, EMAGIN Clean Technologies Inc. has become a global player in the competitive field of data-driving water and wastewater operations. At the 2017 Data Challenge Accelerator competition in San Francisco, EMAGIN was named one of the world's top-10 digital water companies.



## Hack for Good

A 36-hour, student-alumni joint hackathon yielded some promising new apps. At the GeekSpeak-hosted Hack For Good, **Omar Almoostasem, Talha Zia and Priyank Patel**, developed ReapCycle, which helps people decide whether to sell, repurpose, donate or toss old junk.



**Anthony Ridding** developed Odd Jobs, an app that connects people looking for help with small tasks, with community members looking to earn money. Hackathons are multi-day events where computer programmers, designers and marketing professionals meet to engage in collaborative software development.

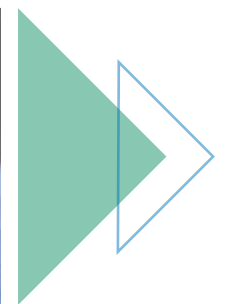
## Smart Remarks

Artificial and human intelligence came together this past August at the university's annual Student Research Showcase. Presenting to students, faculty and industry leaders, dozens of undergraduate students presented artificial intelligence applications aimed at improving classroom education, building a better transit system for the Golden Horseshoe, and many other brilliant ideas.

## Bigger, Bolder and Prouder Than Ever

The university's largest-ever graduating class crossed the stage during Convocation 2017. Approximately 2,200 graduates received their degrees, including more than 260 graduate degrees, 27 of which were PhDs.

This year, the Faculty of Science celebrated the first graduate of its Astrophysics program, and the Faculty of Business and Information Technology awarded its first graduate diplomas in Accounting.



# ACCOMPLISHED ALUMNI



## Angler Management

One of the university's first graduates received the 2016 Greater Oshawa Chamber of Commerce Young Entrepreneur Award. The chamber recognized Bachelor of Commerce grad **Dan Miguel**, who co-founded a social media platform called National ProStaff (NPS), through which anglers and fishing suppliers connect and do business. Located in Oshawa, the company employs 14 people and serves a variety of clients online at NationalProStaff.com and through the NPS app.

## Diploma to Degree to New Career

As a high school dropout, **Vannessa Williams** thought she had few career options. Then she enrolled in a college Paralegal program where she discovered UOIT's Pathways Diploma-to-Degree Program. She bridged to a Bachelor of Arts in Legal Studies, and today she works as an Insurance Secretary for the Durham District School Board.

*"I am proud to be part of an exclusive network of close to 16,000 alumni," says Sean McNam, President of UOIT's Alumni Association. "We are leading businesses, industries and communities across Canada and around the world."*

## Controls and Diagnostics: Living the Dream

Even as a child, **Arnold Odrigo** loved cars. His passion never waned. He graduated in 2017 with a MASc in Automotive Engineering, and has already embarked on a career as a Controls and Diagnostics Development Engineer for GM Canada. He says the automotive world will keep him enthused for a lifetime.

*"Don't let your dreams just be dreams," he says. "Just. Do. It."*





## Tutor, Mentor, Author, Grad

Every student follows a different journey. But Burundi-born **Jean Bertrand Alestide Nsanzeryaka** stands out. He grew up in refugee camps in Tanzania and Malawi, before coming to Oshawa through the World University Service of Canada. In 2017, he became the university's first refugee student to receive a degree. For him, it's "a dream come true". For us, Jean's success represents all that we can aspire to as a university. He now works as a teaching assistant at the university, offers private tutoring, and helps children in Africa continue their education. Jean recently published a book about his life: *You Are My Friend*, which is available from Amazon. One day soon, he hopes to reunite with his family.

## Technically Happy

The university's emphasis on technology and online learning helped **Brittany Allan** stand out against thousands of candidates to become a full-time teacher. Just months after receiving her Education degree, she started teaching physical education in British Columbia.

*"Today's learners interact with technology every day," she says. "UOIT prepared me to develop innovative teaching strategies to engage them."*

## Insurance Claim to Fame

Since graduating with a Bachelor of Commerce in 2008, **Michael Whibley** has risen through the ranks in the insurance industry to become Assistant Vice-President (Commercial Lines) at Aviva Canada. He says university grads should not overlook this rewarding field. Michael says UOIT's progressive mindset, passionate professors, and emphasis on teamwork remain with him to this day.

## The Student Becomes the Teacher

College professor and market researcher **Matthew Hack** feels like he's giving back some of what he received through his 2013 degree in Criminology Justice and Policy Studies.

*"Developing and instructing my own course enables me to return to my students some of what my UOIT experience provided: the ability to be curious, think deeply and challenge ideas," he says.*



# FACULTY AND RESEARCHERS AT WORK



## Nuclear Powerhouse

The university's newest Canada Research Chair brings nation-leading expertise in nuclear fuels and materials. **Markus Piro**, an assistant professor in the Faculty of Energy Systems and Nuclear Science, uses advanced modeling, high-performance computing and simulation to improve the performance and safety of both conventional and emerging nuclear technologies.

## Salt Assault

**JoAnne Arcand**, an assistant professor in the Faculty of Health Sciences, won a New Investigator Partnership Prize from the Canadian Institutes for Health Research in 2017. The prize, one of the highest possible accolades in her field, recognizes her influential research on salty foods and sodium overconsumption in Canada.



## Radiating Success

Nuclear safety champion and professor in the Faculty of Energy Systems and Nuclear Science, **Ed Waller** won the 2017 Canadian Radiation Protection Association's Distinguished Achievement Award for outstanding contributions to knowledge, practice and advancement of the field of radiation protection.

## Climbing the Charts

The university's Faculty of Engineering and Applied Science received major recognition from ranking agencies this year: The U.S. News and World Report Survey placed the faculty in the top third of all of Canada. Meanwhile, the influential Shanghai Rankings ranked our Electrical Engineering program among the top 400 in the world, and Mechanical Engineering even higher, in the top 300.

## Achievement Unlocked

"Serious video gaming" mixes traditional gameplay with training and education for fields ranging from piloting to medical operations. Four profs from the Faculty of Business and Information Technology, **Pejman Mirza-Babaei**, **Bill Kapralos**, **Patrick Hung**, and **Miguel Vargas Martin**, were highlighted guests at a major pan-American workshop on serious video games, held at Universidad Militar Nueva Granada in Bogotá, Colombia.

# We'll Grant You That

Six research teams won major grants from the Social Sciences and Humanities Research Council in 2017. Each of the following projects garnered more than \$660,000 in funding, in recognition of their potential both to generate new knowledge, and also to change the world.

In a country as diverse as Canada, ethnic minority newspapers play a major role in shaping the news. **Aziz Douai**, an Associate Professor in the Faculty of Social Science and Humanities, is leading a team researching how these newspapers “construct” crimes stories, with an emphasis on how they address issues of race.

Reading, writing and arithmetic sound like simple building blocks for teaching literacy. But literacy is actually multi-faceted, and not everybody learns the same way. Social Science and Humanities professor **Shanti Fernando** works with education and social science researchers to explore how supported education and policies of inclusion can boost literacy-building efforts.

A team led by **Caroline Barakat-Haddad**, a Health Sciences faculty member, won a grant to study the barriers faced by ethnically diverse adolescent girls who want to play sports. Removing such barriers benefits both the girls themselves, and also enhances general athletic participation.

**Christopher O'Connor** won an Insight Development Grant to study the risks and opportunities of ‘fracking’ in Canada. O'Connor, an assistant professor in the Faculty of Social Science and Humanities studies the potential social impacts of fracking, which can be as great as the effects on geology and ecosystems.

**Brian Cutler** also received an Insight Development Grant to continue his work related to interrogations and confessions in criminal investigations. In particular, this grant will allow his team to study tools to assess whether witnesses and suspects have been coerced during interviews.

Canadian universities still tend to underrepresent people from certain backgrounds. Social Science and Humanities assistant professor **Alyson King** has received funding to study how students within these groups have found success.

Faculty also garnered nearly \$2 million from the Natural Sciences and Engineering Research Council of Canada. Highlights include:



**Patrick Hung**, an internationally recognized IT security expert, won funding to continue his work researching how best to safeguard the privacy and well-being of children online. The grant he received focuses on how to mitigate risks associated with smart, internet-enabled toys.

Faculty member **Hossam Gaber** won funding to research and develop the planning, control, and optimization of resilient smart energy grids and interconnected micro-energy grids.



Storing solar-generated energy remains a vexing issue for renewable systems. Engineer **Ibrahim Dincer** garnered support to study heat-storage technologies that could lead to new, more efficient green power generation.

Health Sciences **Associate Dean Bernadette Murphy** studies how the central nervous system integrates different types of sensory input from the spine. The funding she received supports research related to chronic neck and back pain, and to bigger questions about how the brain and body are connected.

Along with vitamins, minerals and protein, a healthy body also relies on microbes. **Julia Green-Johnson** received funding to study how interactions among probiotics, gut microbes and food components affect our immune systems.



# THOUGHT LEADERS



## Student Research Showcase

Working alongside professors to turn innovative ideas into real solutions consistently ranks as one of the greatest student experiences at the University of Ontario Institute of Technology.

At the latest Student Research Showcase, dozens of undergraduates shared their discoveries and findings with fellow students and faculty, as well as industry and community partners.

The event gives students a glimpse into the world of professional research, providing them with experience in investigation, interviewing, data analysis, modeling and more.

Students presented work, in a wide range of research areas, including alternative fuels, criminal investigation techniques, energy efficiency, health care, and water quality.

Participants also sharpened their presentation, communications and knowledge translation skills.

*“Our undergraduate students conduct research side-by-side with professors,” says Interim Provost Robert Bailey. “This experience helps prepare them to make a significant positive impact in our community and beyond after they graduate and develop into tomorrow’s leaders.”*

## Entrepreneurship: Major or Minor?

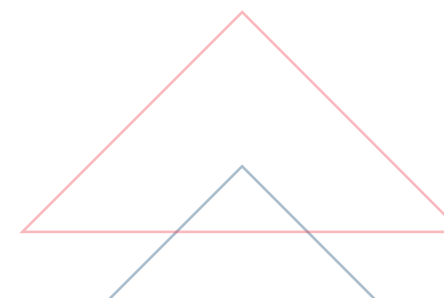
The Faculty of Business and Information Technology launched a new entrepreneurship program that provides students with critical business skills needed to start and run their own companies.

Bachelor of Commerce students can major in Entrepreneurship, and any university program can come with an Entrepreneurship minor.

*“Only a few universities offer entrepreneurship training to non-business students,” says Doug Allingham, UOIT Board Chair. “But we believe marketable ideas can come from any field of study, and it fits with our philosophy to offer this program option to all of our students.”*

The program covers management, creative idea generation, lean venture creation and finance, all through an entrepreneurial lens. We provide physical space, resources, guidance, mentoring, and expertise through which students develop their own companies.

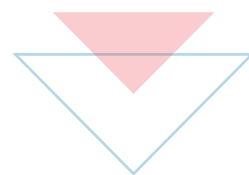
Entrepreneurship majors also put their learning to work through either the faculty’s Incubator Program or an internship at a start-up company.





## Software and Informatics Research Centre

The new Software and Informatics Research Centre opened in September 2017 and is a hub for research in health and business analytics, IT security, networking, gaming, and software engineering.



*“The addition of the SIRC building at UOIT provides students a vehicle for innovation and success. The addition of study space in SIRC allows students room to collaborate across faculties and bring forth new ideas.”*

**- JOSHUA HARRINGTON**  
GRADUATE STUDENT, COMPUTER SCIENCE

The centre will promote and provide interdisciplinary, experiential learning for students in computer science, IT and engineering. Part of the centre’s technology-enhanced learning model involves new and innovative digital conferencing technology that will facilitate expanded e-learning and remote guest lectures, as well as closer ties with key industry partners.

Of the \$33.5 million investment, \$11.8 million was provided by the Government of Canada and \$1.2 million from the Government of Ontario. The generosity of individuals, companies and foundations helped the university fund the remainder of this project and will support the work of our students and researchers in this new facility.



## Five Years of Talking Science

The university’s Let’s Talk Science volunteers are celebrating five years of free, high-quality science, technology, engineering and mathematics outreach to local youth in Oshawa and across Durham Region.

Through the award-winning Let’s Talk Science Outreach program, post-secondary students share their research with the broader community. They build skills like public speaking, problem solving and time management. UOIT Governor and Let’s Talk Science President, Bonnie Schmidt, has delighted in seeing the program flourish on campus over the years.

*“As a STEM-based university with a deep commitment to experiential learning, the partnership between UOIT and Let’s Talk Science is a shining example of how post-secondary institutions and community-based organizations can collaborate to shape lives.”*



## New English Language Centre

To support students from outside Canada, UOIT has launched a new English Language Centre. The centre offers an innovative, practical curriculum designed to ensure language skills don't pose a barrier to academic success.

Working with faculty from across the university, the centre has developed a comprehensive "English for Academic Purposes" program. The program can benefit not only international students wishing to study at this university, but also at other post-secondary institutions.

The program immerses students in relevant language-learning contexts and real-life situations, where they can develop practical skills. The centre also will host long and short-term summer programs tailored for specific groups, including both academic and corporate clients.



## Visiting Elders Program

One week each semester, the university's Indigenous Education and Cultural Services organizes a Visiting Elders program, designed to serve UOIT's diverse student body. Visiting Elders offer lectures on topics of interest to the university community as well as individual appointments with students and faculty for one-on-one counselling and curriculum Indigenousization recommendations.

Thanks to their knowledge, wisdom, and life experience, Indigenous Elders garner great respect both within the Indigenous community, and at our university.

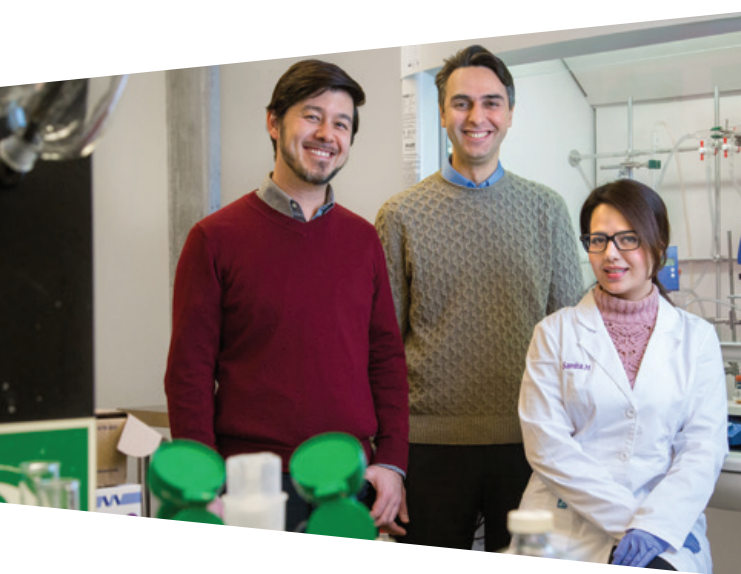
*"The success of this university relies on strong connections with broader communities," says Jill Thompson. "The Visiting Elders program serves our Indigenous students, but it also benefits the entire campus."*





## Purdue Pharma Distinguished Lecture Series

Stanford University's Justin Du Bois delivered this year's lecture, which focused on the potential for using certain toxins such as Batrachotoxin and Saxitoxin and poisons to create new pain medications and nerve injury treatments.



A world-leading organic chemist, Du Bois researches molecular design and chemical synthesis in the fields of pharmacology and chemical biology. He specializes in how certain proteins can affect electrical signal activity in nerve cells.

*"Doctor Du Bois' remarkable story is a testament to the value of curiosity-driven fundamental research," says Yuri Bolshan, a Faculty of Science member and the organizer of the lecture. "His early work on the development of novel chemical transformations allowed him to synthesize architecturally complex toxins, which it turns out can be used as pharmacological tools."*

## Mental Health Takes Centre Stage

At its 2017 Futures Forum on Community Mental Health and Wellness, the university welcomed mental health experts and researchers for a frank, constructive conversation about mental health issues.

Opening keynote speaker Lieutenant-General the Honourable Roméo A. Dallaire spoke candidly about the aftermath of his role as commander of the United Nations peacekeeping mission in Rwanda in the mid-1990s.

Renowned Canadian author Neil Pasricha's closing speech offered upbeat messages highlighting practical and thought-provoking everyday activities that can increase happiness.

These two talks bookended a wide-ranging conversation about issues including depression, substance abuse, addiction and bipolar disorder. Such subjects are far less taboo than they once were. This growing openness reduces harmful stigma, and also makes it possible to find effective ways to address these issues.





## Smart Communities

This year, the university hosted a major forum on smart community development. Experts from academia, government and leading corporations gathered to discuss strategies for developing socially inclusive, innovative, digitally enabled, and economically and culturally robust communities.

The topic is timely. A combination of accelerating urbanization and emerging communications technologies make it more possible – and more urgent – than ever to think wisely about how cities develop.

Should all new homes in Ontario be net-zero energy structures? Could Highway 2 across

Durham Region be the prototype route for urban electric vehicles? This year's Futures Forum focused on questions like these, with the discussion documented in a subsequent report.

The annual Futures Forum allows the university to add fresh perspectives and expert voices on key current public policy issues.



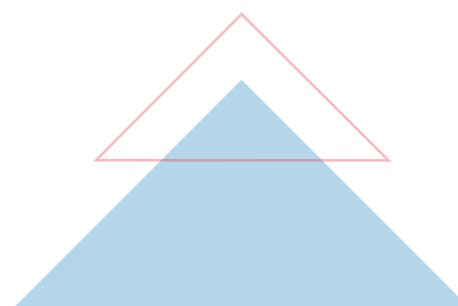
## Science Rendezvous

More than 900 aspiring scientists participated in the 10th annual Science Rendezvous on UOIT's campus.

*"The University of Ontario Institute of Technology is one of the founding partners for Science Rendezvous," says Annette Tavares, Science Rendezvous Co-organizer and Senior Lecturer with the university's Faculty of Science. "From the beginning, our goal has been to help the public better understand how science affects our daily lives, and to give them a chance to meet university scientists face-to-face."*

The first event in 2008 drew 75 people. Attendance tripled the following year. This year's attendance was the highest ever.

*"It's clear people appreciate this behind-the-scenes glimpse into scientific discovery," says Tavares. "We're looking forward to many more years of inspiring engagement, curiosity and inquiry through Science Rendezvous."*



# COMMUNITY CONNECTIONS



## Putt it Forward

Over its 20 years, the Roger Anderson Charity Classic golf tournament has raised more than \$6 million to support local youth.

At the 2017 event, 220 golfers took to the Deer Creek golf course, raising over \$400,000 to support students in financial need. The popular tournament also helps fund child and youth programs at Ontario Shores Centre for Mental Health Sciences.

*"I am so grateful for the support of the community – from the golfers, who often represent local businesses, to the volunteers who tirelessly dedicate their time – for helping make this tournament a success every year," says Roger Anderson, Durham Regional Chair and Chief Executive Officer.*

## Give it Forward

The university's Holiday Food Drive continues to honour the long-standing campus tradition of providing hampers and financial assistance to student families in need.

Co-chair Brad MacIsaac says the campaign is needed more than ever.

*"Each year we experience an increase in demand for holiday season support," MacIsaac said. "Thanks to the generosity of our campus community, we were able to provide assistance to over 230 families—more than 500 people last year."*

*"I'm blown away by everyone's generosity," wrote one recipient. "When you have to choose between buying food or Christmas gifts for your children, it's hard to enjoy the season. All I can say is thank you so much to everyone. When I can, I will be sure to pay it forward."*





## Textbooks for Change

The university's Campus Libraries partnered with Textbooks for Change, a social enterprise that donates used textbooks to post-secondary institutions in sub-Saharan Africa. Founded in 2014, Textbooks for Change provides quality educational tools to all parts of the globe regardless of socioeconomic status or geographic location. At the time this report was published, Textbooks for Change had reused and recycled over 400,000 textbooks.

## A Generous Gift Creates New Scholarships

The University of Ontario Institute of Technology jointly received a generous gift from the Estate of Anne Sabat. The money has created new scholarships and bursaries for students.



*"My Aunt Anne took great delight in meeting with staff and students and learning more about their work, studies and needs," says Sylvia Boissoin. "I know she was very pleased with her decision to make this gift to the university."*

UOIT has added this gift to the Sabat Family Endowment, which provides financial awards for full-time students who demonstrate strong academic performance. The university will match the endowment's annual income to support as many as 12 annual \$3,000 awards.

Sabat passed away in 2015.

## Bee Plus

To counteract declining bee populations, the university's Office of Campus Infrastructure and Sustainability has launched a community partnership dubbed the Pollinator Project. Apiarists from the Royal Meadows Farms in Bowmanville, Ontario, share their beekeeping expertise and help maintain hives at the Windfields Farm lands.

In 2016, university staff discovered a swarm of bees entering a barn on the Windfields property. More honey bees turned up in another portion of Windfields and in a former arena. The new finds were safely relocated to Windfields' first three hive boxes.

Today, 17 honey-producing beehives ply an adjacent two-hectare pollinator garden seeded with a variety of native wildflowers.

*"We are excited about maintaining a pollinator-friendly environment," says Ken Bright, Director of Campus Infrastructure and Sustainability. "The project will help preserve a variety of essential pollinators including not only bees, but also butterflies and hummingbirds."*

To keep things local, harvested honey is for sale at the Campus Market and will soon be available at UOIT's campus stores.



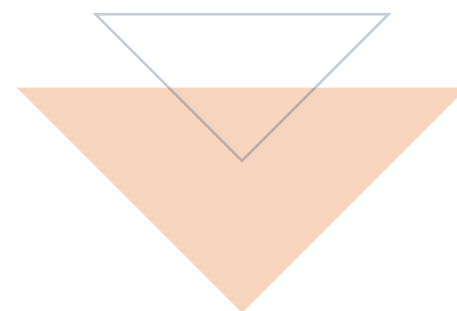


## Going to Bat for Pollination

Plant pollination takes place 24 hours a day. When day-worker bees head back to the hive for the night, bats (and moths) take over. Through its Pollinator project, the university has begun placing bat homes around campus.

*“Most people know that bats help keep down populations of mosquitos and other stinging insects, but they also help pollinate plants,” says Nadia Harduar, the university’s Asset and Sustainability Planner. “So there’s more than one reason for us to address Canada’s declining bat populations through this project.”*

In 2017, the university installed its first six bat homes and will assess their success to determine whether to add more.



## Smooth Ride

Spinning spokes and whirling blades come together in a “blender bike” built by students in the Office of Campus Infrastructure and Sustainability. A single set of pedals powers both the wheels of a stationary bike and a blender mounted on the back. Riders burn calories while preparing to replenish them.

Users can load up the blender with kale, bananas, wheatgrass, honey and ice, go for a spin, and have a fresh-made smoothie waiting for them at the end of their workout.

*“We used the blender bike first at our Campus Market and again during Fair Trade Week,” says Zowie Vonkalckreuth, 5<sup>th</sup> year Energy Systems and Nuclear Science Engineering student. “It was a great initiative to engage students on a variety of health topics including physical activity, nutrition, sustainable practices, and the power within students.”*







## A Powerful Gift

The Power Workers' Union has made a major donation to the university to create two \$5,000 undergraduate and three \$5,000 graduate scholarships for students studying Electrical Engineering, and supporting the construction of the university's new Software and Informatics Research Centre.

The Union's support will drive smart-grid and electric-vehicle research at the university within the Faculty of Engineering and Applied Science.

The Union, which represents 16,000 workers across Ontario's energy sector, places value on community engagement and supporting organizations committed to health and safety, environmental advocacy, youth and education.



## Building Together

The Carpenters' Union - Local 397 wants to create a stronger society by building infrastructure and opportunity for the future.

Its generous pledge to the university allows the Faculty of Social Science and Humanities to invite leading experts and thought leaders into our classrooms and lecture halls, sparks discussions and creative solutions to today's social challenges, and raises awareness of grassroots issues in our community.

Local 397's support inspires our students to become the next generation of change makers who will energize and enrich our society.

## Energizing Excellence

Ontario Power Generation has renewed a decade-long partnership with the university, investing millions over ten years to support capital expenditures, educational programs, equipment, scholarships and bursaries.

*"This partnership allows us to offer financial support for students who have demonstrated true excellence in their field," says Dr. Akira Tokuhiro, Dean, Faculty of Energy Systems and Nuclear Science. "These scholarships and bursaries help solidify our university's role as an educator of Canada's energy leaders."*

The partnership also allows the university to invest in new training and mock-up equipment and also to allocate funds for the university's nuclear-engineer-in-residence position in the Faculty of Energy Systems and Nuclear Science.

*"The connections with OPG have expanded well beyond the original agreement," says Alan Shiever, Vice-President, Learning and Development at OPG. "Both our organizations clearly benefit from those interactions."*





## Partners in Students' Mental Health

As many as 40% of Canadian university students experience symptoms of depression, anxiety and coping difficulty, particularly during their first year.

To develop new approaches to address these serious challenges, the Faculty of Health Sciences has partnered with Canadian Mental Health Association (CMHA) Durham on a new research project involving hundreds of undergraduate students.

Led by Pierre Côté, the Canada Research Chair in Disability Prevention and Rehabilitation and Paul Secord, Director, Programs and Clinical Services from CMHA Durham, the project is supported by the Ontario Trillium Foundation.

In its initial phases, the research team will explore the association between modifiable lifestyle factors like exercise, sleep, food insecurity and socioeconomic factors.

*"This project will articulate the burden of student mental health issues and identify risk factors that will help develop health and wellness programs," says Côté. "The university is proud to collaborate with CMHA Durham and the Ontario Trillium Foundation."*



## Pedals and Strokes

As part of a fundraiser for the Heart and Stroke Foundation, university staff members pedaled a 30-seat bike through the city's core, whooping and hollering all the way. Together, they raised more than \$3,000 to support cardiovascular disease and stroke prevention research.

*"I rode in memory of my grandfather, who died of a heart attack at 68 when I was three," says team captain Andrea Brown, Graduate Communications Coordinator, Office of Graduate Studies. "My grandfather was a wonderful, kind-hearted man who loved his family and lived to serve others. I wish I had more time to get to know him and learn from him. I wanted to help support the Heart and Stroke Foundation so other grandfathers can watch their grandkids grow up and do things like ride on the Big Bike."*



## Cultivation of Indigenous Wisdom

Thanks to a TD Friends of the Environment Foundation Canada 150 grant, teacher candidates in the Faculty of Education have launched a project to incorporate Indigenous knowledge and perspectives into campus community-garden projects. The first partnership led to two gardens at the university's downtown Oshawa location, behind the UOIT-Baagwating Indigenous Student Centre.

New garden beds feature local flora including sweetgrass, sage and other native plants. Staff, teacher candidates and summer camp counsellors will maintain the gardens.

*"Sustainability and environmental action projects are important for the teacher candidate experience and for the Faculty of Education," says Sheila Rhodes, faculty member and the coordinator of the project. "It feels natural to model best practices in environmental education by connecting to Indigenous knowledge."*



## Living Laboratory

Oshawa has become "a living laboratory" thanks to a new partnership between the local government and several research institutions.

The University of Ontario Institute of Technology and our partners are working together to develop experiential learning opportunities, conduct applied research, and create innovative teaching partnerships that address urban issues such as sustainability, innovation, and emerging job markets.

*"As a nimble mid-sized municipality that is part of one of North America's largest urban areas, Oshawa is uniquely positioned to take on this role," says Oshawa Mayor John Henry. "We're looking forward to watching Oshawa take its place at the forefront of urban innovation."*

Douglas Holdway, Interim Vice-President, Research, Innovation and International says the partnership represents the direction all institutions should be headed.

*"Universities benefit more and also contribute more when they engage with their home communities and region," he says. "Partnering in this kind of 'learning from living' relationship enhances quality of life in our community."*

# OUR UNIVERSITY AROUND THE WORLD

## Germany and Italy

The university's expanding international outreach gained three new partnership agreements with leading universities in Europe. Two universities in Germany—Augsburg University of Applied Science and the Technical University of Braunschweig—along with Italy's University of Salerno now have agreements supporting bilateral exchanges of students and faculty members.

Each partner institution enjoys a similar profile to us in terms of enrolment, programming, research portfolios, local industrial base and proximity to a major city.

*"These agreements align the university's existing strengths with some of the very best scholars, scientists and engineers in Germany and Italy," says Douglas Holdway, Interim Vice-President, Research, Innovation and International.*

The agreement with Augsburg will initially focus on business and information technology.

We're working with Braunschweig to expand opportunities in fields connected to autonomous vehicles, new manufacturing processes, urban mobility and molecular sciences.

With the University of Salerno, we're focusing on energy systems, business, legal studies, information and communications technology and data analytics, materials science, environmental studies, and health and pharmaceutical sciences.

## Ireland

The university also forged a new institutional research collaboration in Ireland, signing a new agreement with the Technological University for Dublin Alliance.

UOIT hosted a joint symposium in Oshawa to talk about new directions in higher education, the impact of accelerating technological change, and the rise of "hybrid post-secondary relationships" exemplified by this very agreement.

*"Changes in higher education aren't confined to Ontario and Canada," says symposium co-chair Brian Campbell. "The rest of the world looks to our region to demonstrate how post-secondary institutions can evolve and work together to remain relevant. We are learning a lot from the Irish education model, and we have many great ideas to share with them as well."*

Out of the symposium, the partners signed an international memorandum of understanding to create the Canada-Ireland Centre for Higher Education Policy and Practice. The Centre will promote inter-institutional research collaborations, joint publications, joint conferences and international exchange opportunities for faculty, staff and students.





## Studying Abroad

This summer, the largest group in the university's history embarked on international exchanges.

Forty-three students studied abroad at partner universities around the globe, more than double the previous year.

Madison Hill, a third-year Kinesiology student, for example, participated in a three-month 'Kinternship' in Trinidad and Tobago. She worked with sports therapists, evaluating injuries, working with strength and conditioning staff, and accompanying teams to competitions.

Rachit Desai, a third-year Medical Laboratory Science student embarked on an international exchange program at Nanyang Technological University in Singapore.

The university continues to expand its partnerships throughout the Commonwealth, including new opportunities at the Indian Institute of Technology Ropar.



## The World Is Welcome Here

An expanded agreement between Canadore College in North Bay, Ontario and the university provides international students with increased access to college-to-university transfer programs.

International students can now declare their intent to pursue an undergraduate degree during their first semester at Canadore. Students will then automatically be considered for admission to a college-to-university transfer program upon graduating from an applicable diploma program.

The agreement covers nine undergraduate programs at the university, including science, commerce, communications, criminology education and more.

*"We are delighted to extend our partnership with Canadore College and to provide new avenues for international students," says Noreen Taylor, the university's Chancellor. "We look forward to more Canadore graduates pursuing undergraduate degrees at UOIT."*



## The World Is Welcome Here (Part 2)

A new agreement between the university and the Durham Catholic District School Board makes it easier for international high school students to complete their post-secondary studies in Canada.

Through a new memorandum of understanding, UOIT provides conditional admission offers to students from areas recognized as priority countries in Canada's International Education Strategy. An offer becomes firm when the student attains an Ontario Secondary School Diploma and a competitive grade point average.

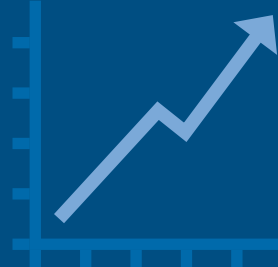
The agreement lets the Board promote the university as they recruit abroad.

The university's international plan focuses on international student retention and success, and on creating new pathways to attract international students.

# UOIT BY THE NUMBERS



For every dollar of base funding, UOIT generates **\$3.60** of spending in Ontario.



In 2014-2015, UOIT contributed more than **\$200M** to Ontario's gross domestic product.



In the same period, UOIT generated **1,949 jobs**, with two-thirds of them located in Durham Region and Northumberland County.



According to a recent Graduate Survey, **79%** of UOIT graduates found work in their field after 2 years.

## Beyond the Numbers

Economic impact is only part of our story. Through research, education and active citizenry, our university:

- Strengthens our communities
- Makes businesses, community organizations and governments work better
- Equips students with skills to succeed in business and in life



**CHALLENGE INNOVATE CONNECT**



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