

ONE HUNDRED AND TWENTY-SIXTH CONVOCATION

# CONVOCATION



FACULTY OF ENGINEERING



On this day, as the University of Waterloo awards degrees and celebrates the achievements of a new generation of graduates, the members of the University and its guests share in a 900-year-old ritual called convocation.

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#### **A NEW TRADITION**

Eagle Staff

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# Message from the Chancellor

#### *Welcome graduands, family members, and friends to the Spring 2023 convocation.*

As Chancellor of the University of Waterloo, it is my honour to preside over this ceremony.

Today, we welcome representatives from our community including faculty, staff and alumni to share in and celebrate these achievements.

Convocation marks the growth of the University of Waterloo family with all of our graduates as its newest alumni members. Since the institution's inception in 1957, we have conferred nearly 242,000 degrees and certificates. Our alumni community extends to over 150 countries, and offers a network regardless of where the future takes our graduates.

The University of Waterloo is driven by a desire to uncover innovation through creativity. We are an institution founded in extraordinary times, and as a result generates extraordinary leaders.

When I look across our campuses and beyond, I see impactful innovations coming to fruition. Examples include using quantum to improve MRI capabilities, finding new methods to combat the spread of misinformation and integrating AI more seamlessly into a variety of applications – all three examples are gaining momentum because of the work being done at Waterloo.

We are a community of innovative leaders who seek out ways to solve the big problems of our time, from solar geo-engineering that mitigates global warming to miniature diabetes monitors that can detect glucose. What can't be lost is the breadth of knowledge and imagination within our community. From best-selling poets to NASA researchers and venture capitalists, Olympians to CEOs of multinational corporations and leading environmentalists, we are providing the world with more Waterloo, and it is making the world a better place.

Profound disruptions persist globally – economic, technological, political, and social. This creates challenges, but also opportunities like we've never seen before. The world needs our graduates to harness all their experiences to lead and shape the future. The exceptional knowledge and creativity they have honed at the University of Waterloo has prepared all of them to be the leaders the world needs.

As our graduates cross the stage, they will bear the privilege and responsibility of bringing the spirit and values of this distinguished institution with them, wherever their lives may lead. They now have an opportunity to shape a better, more equitable world through their careers and community involvement.

Congratulations to all of our graduates and thank you for continuing the Waterloo tradition of excellence.



**DOMINIC BARTON** *Chancellor* 

"FROM BEST-SELLING POETS TO NASA RESEARCHERS AND VENTURE CAPITALISTS, OLYMPIANS TO CEOS OF MULTI-NATIONAL CORPORATIONS AND LEADING ENVIRONMENTALISTS, WE ARE PROVIDING THE WORLD WITH MORE WATERLOO, AND IT IS MAKING THE WORLD A BETTER PLACE."

## *Message from the President and Vice-Chancellor*

Congratulations to the Class of 2023. We are thrilled to welcome our graduates and their family, friends and supporters to celebrate this momentous occasion.

Today's ceremony recognizes the hard work and perseverance students demonstrated during their time at the University of Waterloo. The experience at Waterloo is more than the knowledge gained in the classroom or library or the research undertaken in a lab. It is about the relationships and networks forged during each student's time here. Our institution's rich history and the success of our alumni is rooted in community. As graduates transition from student to alumni, I hope each will continue to stay connected to the Waterloo community.

For the family, friends, and supporters of our graduates, thank you. Thank you for being there for our students, for supporting them and encouraging their success. And thank you for being here today – this ceremony is more meaningful as a result of everyone's participation.

At the University of Waterloo, we pride ourselves on identifying and solving big, complex challenges facing our world. This happens not only on our campuses, but across the globe through our network of alumni. As the world continues to face multiple major crises that cut across society, health, the environment, technology and the economy, each new graduate is among the future leaders and change-makers who can help address these challenges and build a better future for humanity and our planet.

Waterloo graduates are known for integrating knowledge and problem-solving across disciplines. I look forward to hearing about the passions, the innovations and impact our graduates will have on their communities.

We all have an opportunity, and a responsibility, to positively impact those around us. Let's all work together to help shape the world for the better.

On behalf of the University of Waterloo, I wish you the best of luck in the journey ahead.

( Juich God

VIVEK GOEL CM President and Vice-Chancellor

#### "AS YOU BEGIN THE NEXT CHAPTER OF YOUR JOURNEY, I ENCOURAGE YOU TO THINK UNCONVENTIONALLY."

## Message from the Alumni Council Chair

#### Congratulations Class of 2023!

On behalf of the University of Waterloo Alumni Council and your fellow alumni, congratulations on the successful completion of your degree. You demonstrated hard work, dedication and resilience. We are proud of you and delighted to welcome you as the newest members of our community.

Graduation is a significant milestone for you both personally and professionally. I encourage you to celebrate your achievement and take time to appreciate the people in your life that helped you along the way – your family, friends, classmates, and teachers.

As you look ahead to the next phase of your life, I'm confident that your time at Waterloo has prepared you well. You have the expertise, creativity and resourcefulness to tackle whatever problem you choose.

Welcome to a network of more than 242,000 alumni, connected by their experiences at Waterloo.

Throughout your career, I encourage you to stay connected to your alumni community. There are more than 242,000 of us and we are here to support you as you work towards your goals. You can contact Waterloo alumni from anywhere in the world – through our Global Ambassadors, Alumni Chapters and online groups.

I also hope you will join me in sharing your time, knowledge and passion with the University. It is rewarding to volunteer with other talented alumni and your unique perspective can benefit future graduates more than you know.

Congratulations once again on your graduation. You have much to be proud of and a very bright future ahead of you!

I wish you all the best.

Diarn Vangehich

DIANA VANGELISTI BES '84 MA '89 Chair, University of Waterloo Alumni Council

"THERE ARE MORE THAN 242,000 OF US AND WE ARE HERE TO SUPPORT YOU AS YOU WORK TOWARDS YOUR GOALS."

# *Our tradition of convocation*

The ritual of convocation is a tradition that honours the roots of the University, and is, at the same time, a beginning for students who now enter a new stage in their lives. We welcome guests on this celebratory occasion and thank you for being present to share in it.

Both the symbols and the ceremony of convocation look back far beyond the beginning of the University of Waterloo, back to the centuries of university life in Western civilization which Waterloo joined six decades ago. The founders of this University were eager from the beginning to make it part of that long tradition, although they proudly asserted that they were building a new and innovative university, with close ties to industry and an emphasis on practical knowledge for building the future.

On this day, as ancient customs mix with the use of up-to-date technology and the exuberance of a new generation, convocation connects a forward-looking university with the traditions that universities have observed as long as they have existed.

The University of Waterloo grew out of an older institution, Waterloo College. A still older one, the University of St. Jerome's College, soon became federated with it, and the College of Optometry of Ontario joined the family in 1967. Although all these institutions were newcomers compared with Oxford and Harvard and the Jagiellonian, the connection to the traditional role and style of a university remains clear.

Tradition underlies the proceedings of today's convocation, the continuity of this University with centuries of academic experience. Passion brings the proceedings to life, along with the enthusiasm with which the University recognizes new achievements and new ideas.



#### **A CALLING TOGETHER**

Students graduate at the end of a program of study, leading to a degree with a traditional name: Bachelor, Master, or Doctor. On this day, their families and friends celebrate their success and their transition from one status in life to another. Convocation has been, for the past nine hundred years, a meeting of the whole university community at which symbols are displayed, participants wear special attire to emphasize their official roles, and speakers share their wisdom and the values that the University seeks to teach. Convocation (the name comes from Latin, which was once the chief language of higher education) is a calling together of new graduates to receive the symbols of their accomplishment, and a calling together of the older members of the university to be witnesses and join in the celebration.

#### **CONNECTING WITH TRADITION**

At Waterloo's first convocation in June 1960, the guest speaker was James J. Talman of the University of Western Ontario, who told the audience a little about the history of Waterloo County and its industry. "The greatest resource we still have is the minds of the people," Talman said, "and this resource still remains to be developed to its full potential. The people of the Grand Valley clearly appreciate this fact. As we see the success with which they developed the physical resources in the past, we can only conclude that they will be just as successful in developing the intellectual resources of the future. The University of Waterloo can look forward to a brilliant and successful future."

#### THE PROCESSION

The most impressive part of the ceremony may be the procession that begins it. The graduating students will come in first, and as they fill up the main body of the hall, they will give the impression that today's ceremony really is, as convocation used to be, a ceremonial meeting of the whole University community.

After the graduating students have come in, the academic procession will begin. First to enter is the ceremonial Eagle Staff, a symbolic representation of the continuous presence of Indigenous peoples of these lands, carried in by an Eagle Staff carrier. Next, a selected faculty member will carry the mace, a traditional symbol of the University's authority. Then faculty members enter, walking two by two, dressed in their academic finery.

The final party to arrive is the Chancellor's party. The Chancellor is the ceremonial head of the University of Waterloo. The Chancellor presides over convocation ceremonies every June and October and awards all degrees, diplomas and certificates, including honorary degrees. The Chancellor offers an inspirational message for the graduands – at these ceremonies.

#### THE MACE

This solid silver and ebony wand was given to the University in 1965 by the family of the late Stanley F. Leavine and was designed by Toronto artist Eric Aldwinckle and crafted by silversmith Harold Stacey to symbolize the University as it was at that time. It displays lions, chevrons, and the shield of the province of Ontario, from which the University holds its charter to grant degrees.

The symbolic theme of the mace is unity amid diversity, and tension in the creative intellectual process that strives to bring forth a new individual. The design of the mace interprets this theme in the idiom of the life process: from the seeds at the base of the stave the mace grows in unity and strength until it differentiates by a four-fold separation into diverse elements.





The four-fold diversity is significant because of the four faculties existing at the time the mace was presented to the University and as well of the four church-related colleges federated and affiliated with the University. These diverse elements together form a crown, and the point of the crown, while tending toward a union, do not quite touch. They remain as individuals suspended in tension and yet engaged in deep harmony. This creative process is focused not on the traditional spherical orb of static perfection but rather on an elliptical silver ovum – the egg-shaped symbol of creativity – the marvelous potential of a new individual life.

#### THE COAT OF ARMS AND MOTTO

The lions and chevrons also appear on the shield that is the University's coat of arms and that is imprinted on the graduates' diplomas. Derived from traditional heraldry, it has been used since 1961 and was registered with the Court of the Lord Lyon in 1987. The shield uses the official colours of gold, black, and white, and its symbols refer to the University's base in the cities of Kitchener and Waterloo. The unusual double chevrons were borrowed from the coat of arms of Lord Kitchener of Khartoum, and the red lions are like those on the coat of arms of the Duke of Wellington, victor at the 1815 Battle of Waterloo. The lions also reflect the tough and innovative spirit of the University's founders and builders, and the black and white in the chevron are the colours of Prussia, reflecting the Germanic background of many Waterloo County settlers. Beneath the shield appears the University's motto, Concordia cum veritate, "In harmony with truth."

#### **DEGREES AND HONORARY DEGREES**

Presentations of earned and honorary degrees, and the speeches associated with them, take up most of the time at Convocation. Undergraduate and graduate degrees are awarded in each of our six faculties: the faculties of Arts, Engineering, Environment, Health, Mathematics and Science. Also included are students who attended our colleges, Conrad Grebel University College, Renison University College, St. Jerome's University and United College.

In addition to "earned" degrees awarded to students who have met the requirements through years of effort, the University of Waterloo confers "honorary" degrees to individuals who have been designated by the Senate, the University's academic governing body, as deserving special honour. They, too, receive hoods, lined with the colour of the faculty that nominated them or with specially designated colours for other kinds of achievement.

By tradition, public service is recognized with a Doctor of Laws degree even in a university that does not regularly teach law. The individuals receiving honorary degrees are introduced during the ceremony, and a brief citation is read to explain their various accomplishments deserving of recognition by a university. One of the honorands will address convocation after the degree has been given.

# A new tradition

#### EAGLE STAFF

On September 22, 2022, the University of Waterloo held a Commitment Ceremony pledging action towards decolonization, Indigenization and reconciliation. The University is committed to fostering better understanding of Indigenous histories and ensuring Indigenous knowledges and ways of knowing are represented in our scholarship, in our research and in our teachings. Weaving in the knowledges, ways of knowing, and understandings of First Nation, Métis and Inuit peoples equips the Waterloo community, especially Waterloo graduates, with the tools and knowledge they need to create a better future for all. The commitment was formalized through a Pipe Ceremony, after which President and Vice-Chancellor, Vivek Goel, was given the name "Ogiima" (meaning leader) and presented with gifts of an eagle feather and two Wampum belts.

Building on the desire and responsibility to incorporate Indigenous perspectives, the University of Waterloo community came together for a ceremony on March 27, 2023, to welcome an Eagle Staff to the University.

An Eagle Staff is an important element of the Indigenous relationship to Earth and those that have protected it. It reflects the wisdom, strength and honour of those that carry it in representing different Nations across Turtle Island. By welcoming the Eagle Staff, the University acknowledges the responsibility to recognize, accept and incorporate Indigenous perspectives in the ways we teach, govern and behave as an institution. The Eagle Staff will be present at future Waterloo ceremonies and celebrations and will have a prominent place in convocation ceremonies. The Eagle Staff honours the University's First Nations, Métis and Inuit community members, as well as their traditions, cultures and strengths. It is a sacred item that holds a spirit within itself that is cared for by the Indigenous campus community, and that care is reciprocated by the Eagle Staff.

Waterloo Region is situated on territory traditionally shared by Anishinaabeg, Neutral (or Attawandaron), and Haudenosaunee Nations. Though many nations, including the Anishinaabeg, involve an Eagle Staff in their traditions and practices, we respectfully acknowledge that this is not the practice of all nations. With gratitude, we honour and celebrate the unique traditions of all First Nations, Métis and Inuit people, and look forward to reflecting this diversity in spirit and custom as we move forward on this path of decolonization, Indigenization, and reconciliation.



"THE STAFF WILL SERVE AS AN IMPORTANT SYMBOL AND REMINDER OF THE COMMITMENT WE MADE TO RECONCILIATION AND SERVE AS INSPIRATION FOR OUR UNIVERSITY COMMUNITY TODAY AND FOR FUTURE GENERATIONS."

> **VIVEK GOEL** President and Vice-Chancellor

# Honorary Doctorates

An honorary degree (honoris causa) is the highest honour conferred by the University. Through the conferring of honorary degrees, the University of Waterloo seeks to recognize outstanding achievement, whether academic or through service to society.

#### TREVOR HASTIE



Doctor of Mathematics, *honoris causa* WEDNESDAY, JUNE 14 / AFTERNOON CEREMONY

Dr. Trevor Hastie is John A. Overdeck Professor of Mathematical Sciences at Stanford University and a member of the United States National Academy of Sciences. He has made seminal contributions to statistical computing, modelling, and machine learning, with over 200 research articles and six books. He helped develop the statistical modelling environment behind the R computing system that we all use today, invented or co-invented many important tools in modern statistics, and authored numerous highly-acclaimed statistical software. Having guided several generations of statisticians and data scientists with his work, Hastie is one of the most influential statisticians of our time.

#### **ARLIE PETTERS**

PhD, Provost Doctor of Mathematics, *honoris causa* WEDNESDAY, JUNE 14 / EVENING CEREMONY

Dr. Arlie Petters received his PhD in mathematics from MIT in 1991. At Duke University (1998 to 2019), he was the Benjamin Powell Professor of Mathematics and a professor of Physics, Economics and Business. Since 2020, he has served as the provost at New York University Abu Dhabi. His outstanding scholarship resulted in numerous honours, including the inaugural Blackwell-Tapia Prize (2002). Petters was selected by the National Academy of Sciences to be part of a permanent Portrait Collection of Outstanding African Americans in Science, Engineering, and Medicine (2006), and named by the Queen of England to membership in the Most Excellent Order of the British Empire (2008).

#### SEANA BRIDGET MCKENNA



Doctor of Letters, *honoris causa* THURSDAY, JUNE 15 / MORNING CEREMONY

Seana McKenna is a Canadian artist and director in theatre, television, and film. She has been a member of the Stratford Festival for 30 seasons, performing in over 50 roles. McKenna is a Member of the Order of Canada and is the recipient of three Dora Awards, a Jessie Award, and a Genie Award. McKenna shows great versatility in her roles and has challenged conventional Shakespearean theatre norms as one of only a few female performers to take on the roles of Richard III, Lear, and Julius Caesar. She has also received the Tyrone Guthrie Award in recognition of her contributions to mentorship.

#### **JOHN BORROWS**



BA, MA, JD, LLM, PhD, LLD, DHL Doctor of Letters, *honoris causa* THURSDAY, JUNE 15 / AFTERNOON CEREMONY

Dr. John Borrows is a member of the Chippewas of Nawash First Nation in Ontario and is professor and Loveland Chair of Indigenous Law at the University of Toronto. He is an internationally recognized scholar of Indigenous legal rights. Borrows is an Officer of the Order of Canada. He is also a Fellow of the Royal Society of Canada, a Trudeau Fellow, and a Killam Prize and Molson Prize recipient. He received the Indigenous Peoples Counsel designation from the Indigenous Bar Association for honour and integrity in service to Indigenous peoples, the National Aboriginal Achievement Award in Law and Justice, and the Governor General's Innovation Award.

#### **DEBRA PEPLER**

OC, PhD, C, Psych Doctor of Letters, *honoris causa* THURSDAY, JUNE 15 / EVENING CEREMONY

Dr. Debra Pepler received her PhD in Psychology from the University of Waterloo and is a registered psychologist in Ontario. She is a Distinguished Research Professor in the Department of Psychology at York University and a Senior Adjunct Scientist at the Hospital for Sick Children. As a clinical and research psychologist, she has contributed to psychology through her groundbreaking work in bullying, aggression, and other forms of violence experienced by marginalized youth. Her work has changed how professionals understand the frequency, intensity, and impacts of children's experiences of aggression and violence, helping to shape and inform Canadian public policy on violence reduction within schools.

#### YANXIN WANG



PhD, CAS Fellow, IAGC Fellow Doctor of Science, *honoris causa* FRIDAY, JUNE 16 / MORNING CEREMONY

Dr. Yanxin Wang is professor of Hydrogeology and Environmental Engineering at the China University of Geosciences (CUG) in Wuhan. He is also the president of CUG and head of the State Key Laboratory of Biogeology and Environmental Geology. Wang's research has produced major advances in understanding of the sources, fate, and transport of contaminants in groundwater systems. Wang spearheaded the development of innovative remediation and management strategies that protect millions of people from contaminated drinking water. Under Wang's visionary and effective leadership, CUG has become one of China's top institutions in science and technology. MARK WILLCOX BSc, PhD, DSc Doctor of Science, *honoris causa* FRIDAY, JUNE 16 / AFTERNOON CEREMONY



Dr. Mark Willcox is a medical microbiologist and Professor in the School of Optometry and Vision Science at UNSW, Sydney, Australia. His laboratory focuses on understanding the etiology of adverse events and comfort during contact lens wear. His research includes examining mechanisms of adhesion of ocular microbes and the development of novel antimicrobial surfaces. He also studies tear film proteomics and lipidomics, their relationship to contact lens comfort and how tears may serve as biomarkers for diabetes and cancer. Recent awards include the Korb Award from the American Optometric Association (2020) and the Barry Collin Medal from Optometry Australia (2017).

#### **CRISTINA AMON**

BASc, MASc, PhD, DSc, Order of Canada, FRSC, CAE Doctor of Engineering, honoris causa FRIDAY, JUNE 16 / EVENING CEREMONY



Dr. Cristina Amon is the Distinguished Alumni Professor and former dean at the University of Toronto's Faculty of Applied Science & Engineering. Under her visionary leadership, University of Toronto's engineering program has become a global hub for interdisciplinary research and education and a shining example of diversity and inclusion for women, People of Colour and Indigenous peoples in the engineering profession. She has been elected a fellow or honorary member of all major professional societies in her field. A pioneer in computational fluid dynamics for thermal designs subject to multidisciplinary constraints, Amon's research is in thermal transport in nanoscale semiconductors, energy systems, EV batteries and biomedical devices.

#### **ROLA DAGHER**



Doctor of Engineering, *honoris causa* SATURDAY, JUNE 17 / MORNING CEREMONY

Rola Dagher, a leading figure in the Canadian technology sector, has made it her mission to empower those around her. Immigrating to Canada from war-torn Lebanon with an infant in the 1990s, Dagher worked as a retail sales clerk before becoming the president of Cisco Systems Canada and currently as Dell Technologies' global channel chief. Rola sees diversity as the foundation for building a high-performance workforce and is a vanguard of inclusive excellence. Dagher has been named a WXN Top 100 Most Powerful Women in Canada, the Women in Communications and Technology (WCT) Woman of the Year and is an RBC Top 25 Canadian Immigrant Award winner.

#### JOHN BUZACOTT

BSc, BE, MSc, PhD, DHc Doctor of Engineering, *honoris causa* SATURDAY, JUNE 17 / EVENING CEREMONY

Dr. John Buzacott, a former management sciences engineering professor, is a pioneering figure in production and operations management. Buzacott's work in developing a unified framework and rigorous scientific foundation of the approaches currently used in the design, planning and control of manufacturing and service systems has inspired scholars worldwide. His innovative use of stochastic models to explain many phenomena occurring in manufacturing and service organizations has also distinguished him as an exceptional researcher and educator. As a founding member of the Waterloo Management of Integrated Manufacturing Systems research group at the University of Waterloo, his contributions to manufacturing analysis and modelling work continues to be globally recognized.

# Distinguished Professors Emeriti

The Distinguished Professor Emeritus designation is made to faculty members who have had a distinguished record of service in teaching and research in the University. The honorary award is granted upon, or shortly after, retirement.

#### **KENNETH R. DAVIDSON**



University Professor, PhD, FRSC, FIF, CMSF Department of Pure Mathematics WEDNESDAY, JUNE 14 / EVENING CEREMONY

Dr. Kenneth R. Davidson is one of the most accomplished mathematicians in Canada. After completing his undergraduate degree at Waterloo and his PhD at Berkeley, he spent two years as a Moore Instructor at MIT before returning to Waterloo as faculty in 1978. He has been awarded a substantial proportion of the research prizes available to Canadian mathematicians, beginning with the Israel Halperin Prize in Operator Algebras in 1985. This was followed by an E.W.R. Steacie Fellowship in 1988 and a Killam Research Fellowship in 1995. In 2014 he received the David Borwein Distinguished Career Award from the Canadian Mathematical Society for his "exceptional, broad, and continued contributions to Canadian mathematics." He has been a Fellow of the Royal Society of Canada since 1992, a Fields Institute Fellow since 2006 and a Canadian Mathematical Society Fellow since 2018. Davidson is also a highly esteemed instructor and supervisor of 18 Master's and 14 PhD students.

#### **JOANNE WOOD**



University Professor, PhD Department of Psychology THURSDAY, JUNE 15 / AFTERNOON CEREMONY

Dr. Joanne Wood retired as professor from the Department of Psychology after 33 years of service. Wood is recognized as one of the foremost experts in the world for understanding how personality influences relationships - particularly how selfesteem and agreeableness in one partner affect interpersonal interactions and relationship quality. She is also an expert on self-disclosure. In recognition of her work, she has received the Faculty of Arts Award for Excellence in Research and two University of Waterloo Outstanding Performance Awards. She is a Fellow of the Association for Psychological Science, the American Psychological Association - Division 8, and the Society for Personality and Social Psychology.

#### LORNE L. DAWSON



BA, MA, PhD Department of Religious Studies, Sociology and Legal Studies THURSDAY, JUNE 15 / AFTERNOON CEREMONY

Dr. Lorne Dawson retired as professor from the departments of Religious Studies as well as Sociology and Legal Studies. During his tenure at Waterloo, he served as Chair for each department. Dawson is a Research Fellow at the Balsillie School of International Affairs and a Senior Associate at the Munk School of Global Affairs and Public Policy (University of Toronto). He is best known for his contributions to the fields of sociology of religion, and more recently, for his work on terrorism and the process of radicalization that leads to violence. In 2012, he co-founded the Canadian Network for Research on Terrorism, Security, and Society, funded by SSHRC and several government agencies.

## Honorary Members of the University

The Honorary Member of the University designation is the highest honour a staff member can obtain at the University of Waterloo and is granted upon retirement. It recognizes the individual for outstanding service to the University as a whole, not limited to one department or faculty. For faculty members, it recognizes distinctive administrative service to the University.

#### **TERRY STEWART**

BA, MA Information Systems and Technology TUESDAY, JUNE 13 / MORNING CEREMONY

Terry Stewart's involvement with the University of Waterloo spanned nearly 50 years. He completed BA and MA degrees in Recreation and Leisure Studies in 1975 and 1976, respectively. He started his role as a research associate in the Department of Recreation and Leisure Studies in 1981, followed by microcomputer laboratory manager and coordinator of the Leisure Studies Bank in 1984. His role changed to coordinator of computing in 1991, then manager of information technology in 2005, and director of information technology in 2012. Stewart retired in 2015.





Campus Wellness, Health Services TUESDAY, JUNE 13 / AFTERNOON CEREMONY

Dr. Barbara Schumacher shepherded the campus community through serious health challenges, including cases of tuberculosis and outbreaks of meningitis and Swine Flu, while championing progressive and equitable programs that enhanced the lives of thousands of students, faculty and staff during her 39 year career at the University. Promoting mental well-being, tackling sexual harassment, and establishing the Occupational Health office for staff were just a few of her initiatives. In addition, Schumacher's efforts in promoting better health went beyond Waterloo and benefitted people at universities across Ontario. And after retiring as Waterloo's medical director of Health Services in 2015, she established a fund to help refugees continue their university education.

#### EDWIN ANDERSON

Faculty of Mathematics WEDNESDAY, JUNE 14 / EVENING CEREMONY

Edwin (Ed) Anderson's career in education began as a secondary school mathematics teacher in Wingham, ON, from 1956 until 1970, when he moved to the University of Waterloo as a lecturer in the Faculty of Mathematics, where he worked until his retirement in 1991. He helped lead the expansion of mathematics contests that now see more than 250,000 registrations annually from more than 80 countries and was integral to the success of the Mathematics/Teaching undergraduate program. For almost 30 years after his retirement, Anderson remained active in outreach activities, assisting with contests, student workshops and strategic direction.

#### **STEVEN FURINO**



PhD Faculty of Mathematics WEDNESDAY, JUNE 14 / EVENING CEREMONY

Dr. Steven Furino was a faculty member, first in the Department of Mathematics at St. Jerome's University and then in the Centre for Education in Mathematics and Computing at the University of Waterloo, from 1989 until 2020. Furino was an excellent teacher who won the Distinguished Teacher Award in 1989 and was a champion of online education in the Faculty of Mathematics. He was also an outstanding administrator, serving as associate dean, undergraduate and assistant dean. Furino's distinguished service also included educational work in Africa and leadership in the Faculty Association and the University's undergraduate communication initiatives.

#### **SHARON LAMONT**

BA Library



THURSDAY, JUNE 15 / MORNING CEREMONY

A Waterloo alum, Sharon Lamont's (BA, '80) career spanned four decades, culminating in a Library senior leadership position and other noteworthy University-level achievements. During her career, Sharon's leadership and contributions to the Library, community and philanthropy advanced the University's progress toward building a culture of inclusivity and excellence. Lamont's leadership extended across campus, notably with the Waterloo Staff Association, United Way staff campaign and Joint Health and Safety Committee. One of her key achievements was leading the Library to Silver Certification from Excellence Canada. Sharon retired in May 2021 after nearly 40 years of service.

#### **GEORGE FREEMAN**



BASC, PhD Faculty of Engineering SATURDAY, JUNE 17 / MORNING CEREMONY

Dr. George Freeman is a retired electrical and computer engineering professor at the University of Waterloo. Freeman established a sterling reputation as an outstanding engineering educator throughout his career. He served as electrical and computer engineering's teaching and learning champion from 2018 until his retirement in 2022. Freeman's work promoted evidence-based practices for improved learning outcomes, mental health and community building. He also received the Dedicated Service Award from the Canadian Association of University Teachers for his exceptional service to their academic staff associations. Freeman's research interests include signal processing for digital communications, optimal lossless data compression algorithms, and storage and recognition applications in speech and image coding.

# Guest speakers

#### **SCOTT LEATHERDALE**



PhD, FAAHB School of Public Health Sciences TUESDAY, JUNE 13 / MORNING CEREMONY

Dr. Scott Leatherdale is a professor in the School of Public Health Sciences. He is a Cancer Care Ontario Research Chair, a CIHR-PHAC Chair in Applied Public Health Research, and a University Research Chair at the University of Waterloo. Before coming to Waterloo, he was a Scientist at Cancer Care Ontario, responsible for leading Ontario's cancer prevention system. For the past 15 years since joining Waterloo, Leatherdale has developed and led the COMPASS System, the world's largest and most comprehensive youth-focused cancer prevention and mental health learning system. He was an inaugural winner of the Canadian Institutes of Health Research (CIHR) Trailblazer Award in Population Health Solutions and is the first (and only) Canadian researcher to be awarded Fellow status in the American Academy of Health Behavior. His proudest achievement is being the father of two fun and energetic little boys, Thomas and James.

#### **RAPHAEL AYAMBIRE**

BSc, PhD '21 TUESDAY, JUNE 13 / AFTERNOON CEREMONY

As the University of Waterloo's 2021 Caivan International Experience Postdoctoral Fellow, Dr. Raphael Ayambire brings a unique perspective to the challenge of planning and building the world's future cities. After growing up in rural Ghana supporting his parents' agricultural activities, he graduated with a BSc in development planning in Ghana, then journeyed to Canada to complete a planning PhD at Waterloo. Ayambire's lived experience and his education on two continents, has shaped his passionate vision for future cities that can respond to the climate crisis and transformative new technologies while ensuring social equity makes these communities truly sustainable. Ayambire will continue working toward this goal as an assistant professor in the University of Manitoba's Faculty of Architecture, Department of City Planning.

**LISA AULTMAN-HALL** PhD Systems Design Engineering



SATURDAY, JUNE 17 / AFTERNOON CEREMONY Dr. Lisa Aultman-Hall is professor and chair of Systems Design Engineering. Before joining the University of Waterloo, she served as a professor of Civil Engineering at the Universities of Kentucky, Connecticut and Vermont. Aultman-Hall's research focuses on sustainable transportation systems,

especially methods to collect unique databases for modelling and analysis of long-distance travel, transportation sector emissions, network resiliency, streetscape design and non-motorized transportation. A common thread in her work is the pursuit of accessibility metrics that speak to equity. She served several leadership roles at the interdisciplinary University of Vermont Transportation Research Center and as the associate director of the National Center for Sustainable Transportation with the University of California Davis.

# Valedictorians

**Katie Ivancic** Faculty of Health TUESDAY, JUNE 13 / MORNING CEREMONY

**Bennett Paul Gallant** Faculty of Environment TUESDAY, JUNE 13 / AFTERNOON CEREMONY

**Advitya Chhabra** Faculty of Mathematics WEDNESDAY, JUNE 14 / MORNING CEREMONY

**Yichen Carolyn Wang** Faculty of Mathematics WEDNESDAY, JUNE 14 / AFTERNOON CEREMONY

**Vincent Macri** Faculty of Mathematics WEDNESDAY, JUNE 14 / EVENING CEREMONY

**Thomass Muir** Faculty of Arts THURSDAY, JUNE 15 / MORNING CEREMONY

**Arjun Jain** Faculty of Arts THURSDAY, JUNE 15 / AFTERNOON CEREMONY Ammar Kamran Faculty of Arts THURSDAY, JUNE 15 / EVENING CEREMONY

**Tyler Jing** Faculty of Science FRIDAY, JUNE 16 / MORNING CEREMONY

Ahmed Adelkader Faculty of Science FRIDAY, JUNE 16 / AFTERNOON CEREMONY

**Toluwalope Wright** Faculty of Engineering FRIDAY, JUNE 16 / EVENING CEREMONY

**Maya Bishop** Faculty of Engineering SATURDAY, JUNE 17 / MORNING CEREMONY

**Yonael Debebe** Faculty of Engineering SATURDAY, JUNE 17 / AFTERNOON CEREMONY

**Matthew Linehan** Faculty of Engineering SATURDAY, JUNE 17 / EVENING CEREMONY



# FRIDAY<br/> EVENING<br/> CERENING<br/> CEREN

Degrees and diplomas from: UNIVERSITY OF WATERLOO FACULTY OF ENGINEERING

# Graduate Degrees

#### **DOCTOR OF PHILOSOPHY**

Alhusain, Mustafa (Mechanical and Mechatronics Engineering) "Three-Dimensional CT Imaging and Microstructural Mechanical Modeling of Corrosion and Freeze-Thaw Damage of Concrete"

Bhatt, Neel Pratik (Mechanical and Mechatronics Engineering) "Socially and Spatially Aware Motion Prediction of Dynamic Objects for Autonomous Driving"

Chakraborty, Apratim (Mechanical and Mechatronics Engineering) "Fabrication of Hard-To-Process Ni-Based Superalloy Thin-Wall Parts Made by Laser Powder Bed Fusion"

**Cheng, Zhi** (Mechanical and Mechatronics Engineering) "Flow Dynamics and Aeroacoustics of Flow-Induced Vibration of Bluff Bodies"

#### Courtney, Matthew Ryan

(Mechanical and Mechatronics Engineering) "Free-Flow Counterflow Gradient

Focusing for Protein Fractionation"

**Deng, Zejian** (Mechanical and Mechatronics Engineering) "Application of Game Theory to Interactive Lane Change Decision Making for Autonomous Driving"

Farag, Heba Elsayed (Mechanical and Mechatronics Engineering) "Eddy Current Probes Design for Defect Detection in Metallic Parts Made by Additive Manufacturing Processes"

**Ghatei Kalashami, Ali** (Mechanical and Mechatronics Engineering) "An Integrative Investigation of Liquid Metal Embrittlement in the Fe-Zn System: From Responsible Mechanisms to Mitigation Strategies"

Kaji, Farzaneh (Mechanical and Mechatronics Engineering) "In-Situ Monitoring and Intermittent Controller for Adaptive Trajectory Generation During Laser Directed Energy Deposition via Powder Feeding"

Khamooshi, Mobin (Mechanical and Mechatronics Engineering) "Cooperative Vehicle Perception and Localization Using Infrastructure-Based Sensor Nodes"

#### Khan, Muhammad Shehryar

(Mechanical and Mechatronics Engineering)

"Improving the Multiscale Morphological and Mechanical Properties of Laser Welded Al-Si Coated 22MnB5 Press-Hardened Steels"

Kumar, Parichit (Mechanical and Mechatronics Engineering) "Development of a Magnetic Levitation System for Additive Manufacturing Processes"

Lacombe, Francis (Mechanical and Mechatronics Engineering) "Stability of Compressible Boundary Layers in Presence of Smooth Roughness and Wall Temperature Effects"

#### Martinez, Alejandro Pedro

(Mechanical and Mechatronics Engineering) "Monitoring and Control of Metal Additive Manufacturing Processes Using Ultrasound"

Misra, Sirshendu (Mechanical and Mechatronics Engineering) "Wetting & Capillarity: From Thin Film Mediated Processes to Droplet-Surface Interactions"

#### Mohammadbagher, Ehsan

(Mechanical and Mechatronics Engineering) "Self-Localization for Autonomous Driving Using Vector Maps and Multi-Modal Odometry"

**Musikhin, Stanislav** (Mechanical and Mechatronics Engineering) "Microwave Plasma Synthesis of Graphene and its Laser-Optical in Situ Characterization"

Ramachandiran, Nivas (Mechanical and Mechatronics Engineering) "Structure - Property Correlation in Additive Manufactured Ti-5553 Components"

Shahidi, Ali (Mechanical and Mechatronics Engineering) "Model Predictive Controller Weight Tuning and Real-Time Learning-Based Weight Selection"

Sun, Chen (Mechanical and Mechatronics Engineering) "Operational Design Domain Monitoring and Augmentation for Autonomous Driving" Tangestani, Reza (Mechanical and Mechatronics Engineering) "Multi-Scale Modeling of Laser Powder Bed Fusion Process for Superalloys"

Wang, Chia-Pei (Mechanical and Mechatronics Engineering) "Virtual Model Building for Multi-Axis Machine Tools Using Field Data"

#### Wang, Jeremy Chan-Hao

(Mechanical and Mechatronics Engineering) "Riemann Solvers With Non-ideal Thermodynamics: Exact, Approximate, and Machine Learning Solutions"

Zarringhalam, Reza (Mechanical and Mechatronics Engineering) "Sensor Fault Detection and Fault-Tolerant Estimation of Vehicle States"

#### **MASTER OF APPLIED SCIENCE**

**Banjo, Stephen Adewunmi** (Mechanical and Mechatronics Engineering)

**Baranovsky, Alex** (Mechanical and Mechatronics Engineering)

**Boulis, Raphael** (Mechanical and Mechatronics Engineering)

**Boychuk, Roman** (Mechanical and Mechatronics Engineering)

**Budnick, Dylan** (Mechanical and Mechatronics Engineering)

**Colpitts, Alyson** (Mechanical and Mechatronics Engineering)

**Dasari, Yashesh** (Mechanical and Mechatronics Engineering)

Ecclestone, Edward Joseph (Mechanical and Mechatronics Engineering)

**Gao, Tianyi** (Mechanical and Mechatronics Engineering)

**Gupta, Pratishtha** (Mechanical and Mechatronics Engineering)

**Gutierrez, Jon Edward** (Mechanical and Mechatronics Engineering)

Jones, Joshua Taylor (Mechanical and Mechatronics Engineering)

Kamalpreet Kaur (Mechanical and Mechatronics Engineering – Nanotechnology)

Khan, Muhammad Fasahat (Mechanical and Mechatronics Engineering) **Li, Joey Zheqiang** (Mechanical and Mechatronics Engineering)

**Li, Lanyu** (Mechanical and Mechatronics Engineering)

**Lim, Mark** (Mechanical and Mechatronics Engineering)

**MacCallum, Ben** (Mechanical and Mechatronics Engineering)

Mahdi, Anas (Mechanical and Mechatronics Engineering)

**Mao, Ningyue** (Mechanical and Mechatronics Engineering)

Mostafa, Kareem Ahmed WafaaEldeen Ahmed Sedky (Mechanical and Mechatronics Engineering)

Nagorski, Michael Christopher (Mechanical and Mechatronics Engineering)

**Pastula, Christopher** (Mechanical and Mechatronics Engineering)

**Patel, Meet** (Mechanical and Mechatronics Engineering)

**Song, Shiyuan** (Mechanical and Mechatronics Engineering)

Srinivaasappa Indira, Raj Arjun (Mechanical and Mechatronics Engineering)

**Stewart, Curtis Vinai** (Mechanical and Mechatronics Engineering)

**Stothart, Alexander** (Mechanical and Mechatronics Engineering)

Thibault, William Charles (Mechanical and Mechatronics Engineering)

**Tolofari, Tamuno-Ibim** (Mechanical and Mechatronics Engineering)

**Wei, Wei** (Mechanical and Mechatronics Engineering – Nanotechnology)

**Xia, Yuwei** (Mechanical and Mechatronics Engineering)

**Yuan, Shuying** (Mechanical and Mechatronics Engineering)

**Zhou, Jansen** (Mechanical and Mechatronics Engineering)

Zhou, Yongzan (Mechanical and Mechatronics Engineering – Nanotechnology)

#### **MASTER OF ENGINEERING**

Arslan, Sheikh Muhammad (Mechanical and Mechatronics Engineering)

**Bhanushali, Adarsh Anilbhai** (Mechanical and Mechatronics Engineering) **Chang, Luke** (Mechanical and Mechatronics Engineering)

**Chen, Lingfei** (Mechanical and Mechatronics Engineering)

**Chougule, Sanketh** (Mechanical and Mechatronics Engineering)

**DAK, RAHULKUMAR SURESHCHANDRA** (Mechanical and Mechatronics Engineering)

**Ding, Liping** (Mechanical and Mechatronics Engineering)

**Elankannan, Chandrasekar** (Mechanical and Mechatronics Engineering)

**Keshri, Nitish** (Mechanical and Mechatronics Engineering)

**Kocher, Tyler James** (Mechanical and Mechatronics Engineering)

**LI, Yanhui** (Mechanical and Mechatronics Engineering)

Malik, Taha (Mechanical and Mechatronics Engineering – Co-operative Program)

Manohar, Ajay Krishna (Mechanical and Mechatronics Engineering)

Marino, Anthony John (Mechanical and Mechatronics Engineering)

**Navdeep, Navdeep** (Mechanical and Mechatronics Engineering)

**Nedumaran, Kishore** (Mechanical and Mechatronics Engineering)

Nwokotubo, Malcolm Ugochukwu (Mechanical and Mechatronics Engineering – Co-operative Program)

**Pai, Prajwal Prakash** (Mechanical and Mechatronics Engineering)

**Pai Lotliker, Aaditya** (Mechanical and Mechatronics Engineering)

**Pervez, Ibtehaj** (Mechanical and Mechatronics Engineering)

**Pillai, Pranav Balachandran** (Mechanical and Mechatronics Engineering)

**Rahmani, Reza** (Mechanical and Mechatronics Engineering)

**Roy, Roshan** (Mechanical and Mechatronics Engineering)

**Shah, Jinesh Atulbhai** (Mechanical and Mechatronics Engineering)

**Shah, Nisarg Umang** (Mechanical and Mechatronics Engineering)

**Shah, Shivangi Jayrajbhai** (Mechanical and Mechatronics Engineering)

**Shah, Tejas Prakash** (Mechanical and Mechatronics Engineering)

**Shrestha, Bhimsen** (Mechanical and Mechatronics Engineering)

Sidhu, Manrajjit Singh (Mechanical and Mechatronics Engineering)

Thallani Kamalaksha, Suman Kumar (Mechanical and Mechatronics Engineering)

Wadhawan, Arjun (Mechanical and Mechatronics Engineering)

**Wang, Chenyu** (Mechanical and Mechatronics Engineering)

#### **GRADUATE DIPLOMA**

Arslan, Sheikh Muhammad (Green Energy)

**Bhanushali, Adarsh Anilbhai** (Design Engineering – Co-operative Program)

Chang, Luke (Fire Safety)

**Chougule, Sanketh** (Design Engineering – Co-operative Program)

DAK, RAHULKUMAR SURESHCHANDRA (Green Energy)

**Keshri, Nitish** (Design Engineering – Co-operative Program)

Kocher, Tyler James (Fire Safety)

**Manohar, Ajay Krishna** (Design Engineering – Co-operative Program)

**Marino, Anthony John** (Design Engineering – Co-operative Program)

Navdeep, Navdeep (Design Engineering – Co-operative Program)

**Nedumaran, Kishore** (Design Engineering – Co-operative Program)

**Nwokotubo, Malcolm Ugochukwu** (Green Energy)

**Pai, Prajwal Prakash** (Design Engineering)

Pai Lotliker, Aaditya (Green Energy)

**Pillai, Pranav Balachandran** (Design Engineering – Co-operative Program)

Rahmani, Reza (Green Energy)

Roy, Roshan (Green Energy)

**Shah, Jinesh Atulbhai** (Design Engineering – Co-operative Program)

**Shah, Shivangi Jayrajbhai** (Design Engineering – Co-operative Program)

Shrestha, Bhimsen (Green Energy)

Thallani Kamalaksha, Suman Kumar (Design Engineering – Co-operative Program)

**Wadhawan, Arjun** (Design Engineering – Co-operative Program)

# Undergraduate Degrees

#### **BACHELOR OF APPLIED SCIENCE**

MECHANICAL ENGINEERING Abidi, Syed Mohammed Waqar (Computing Option)

Adriano, Annroneth (Computing Option) \*

Akpata, Ephraim Etinosa

Al-Joundi, Kadin Peter \*

Allen, Nathan Collin \*

Andary, Michael Christopher \* Annosantini, Adam Stuart Sante

(Mechatronics Option) \*

Antoniades, Peter Anthony \* Aruchunan, Prasanthan

Assad, David Sameh \*

Ayala Delgado, Armando Alexander

Baranoski, Gabriel Euzebio Chirico

Barrington, Kyle Maxwell \*

Barry, Veronica Juliet-Marie (Welding and Joining Specialization)

**Beazley, Benjamin James** (Mechatronics Option)

Bhattacharya, Ardhendu Shekhar \*†

Bian, Zhen Bo \*†

**Boarder-Allen, Justin** (Welding and Joining Specialization) \*

**Bolt, Collin Gerald** (Environmental Engineering Option) \*

Bonner-Stanley, Justis Andrew Nathanial

Bradski, Simcha Rost \*

**Bruulsema, Timothy** (Welding and Joining Specialization) \*

**Bunkheila, Jihad** (Computing Option) \*

Callam, Andrew Duncan \*

**Canavan, James Spencer** (Welding and Joining Specialization)

Cao, Lisa Carreno-Molina, Oscar Manuel \* Chai, Solomon Sanghyun

(Computing Option) \*

Chan, Billy Ngai Hun

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Chateauneuf, Jacob Douglas \*† Chaudhry, Jazab (Computing Option)

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Chaytor, Duncan Llewellyn \*

#### Chen, Yang

Chen See, Benjamin Luke \* Chow, Adrian Hei Tung (Artificial Intelligence Option) \*

Chow, Ning Kelly \*

**Chu, William** (Management Sciences Option)

Cojocar, Thomas Edward

**Curran, Jack Patrick** (Welding and Joining Specialization) \*

**Dang, Jingwei** (Management Sciences Option) \*

Davla, Shikhar \*

**Dawson, Hugh Munroe** (Physical Sciences Option)

Deol, Harsukh Kaur \*

Desai, Param \*

Ding, Yusen

Domaratzki, Samuel Peter \*

Dondertman, Lucas Emil \*

Dsouza, Snehal Ashlyn Duan, Rui Jia \*†

Dunk, Benjamin Keith \*

El Khayri, Hicham \*

**Embleton, Andrew Marc** (Welding and Joining Specialization)

Fehr, Sylvia Breanne

Fernandez, Natalie Anne \*

Fletcher, Jacob Austin \* Fung, Adam Freeman

Gervais, Tristan Pierre \*

Ghosh, Rapti

Gibbs, Hannah Jane \*

Gurhale, Saurav Laxmikant

Hafeez, Saif Imran

Hakim, Fawaz Suhail \*†

Han, Dong Gyu

Hassanali, Hussein

Hergott, Megan Rita

Hole, Laura Christine \*

Hu, Xingyu (Biomechanics Option) \*

Huang, Ningwei \*

Hussein, Sana

Ingriselli, Daniel Igino \*† Jain, Dhruv Sandeep

Jeyaganeshan, Nisha \*

#### Jia, Chengyu \*

**Johanna, Sarah** (Management Sciences Option) \*

Joseph, Evan Rea (Welding and Joining Specialization) \*

Kagaya, Michiyo \*† Kalia, Nikhila (Entrepreneurship Minor) \*

Karunaratne, Dinil Demetrius Perera \*

Keating, Lauren Louise \*†

**Kenjic, Nikola** (Welding and Joining Specialization) \*

Kenneweg, Christopher James  $^{*\dagger}$ 

Khadra, Hadi \*

Khan, Tahmid Ahmed

Kim, Jae Hyung Kim. Tae Hun \*

Kishorchandra, Ankitha

Klarer, Connor James \*

Knibutat, Carly Alexandria (Software Engineering Option) \*

Kremer, Shannon Kristina \*†

Kuo, Varun Fu-Han \*

Laddaran, Alexsa Mae Cabisudo  $^{st}$ 

Lakhani, Ayaan Aly \*

Lalancette, Gabriel (Welding and Joining Specialization)

Lalani, Rakeen

Lecaj, Burim

Lee, Sanford \*

Lee, Seungjae \*

Lew, Ryan Alexander \*

Li, Jia Hong

Li, Larry \*

Li, Lin \*

Li, Yu Rong \* Li, Yuhao (Management Sciences Option) \*

Liao, Kaiwen \*†

**Liebenberg, Anna Brynn** (Biomechanics Option) \*

**Liew, Shan-Sam** (Artificial Intelligence Option) \*

Liu, Eldon Sheng-Qian (Management Sciences Option)

\* – With Distinction
 † – Dean's Honours List

Liu, Geoffrey Jianfei \*† Liu, Hairan Liu, Kimberly Kim Yen \*† Looi, Horace Ingram (Management Sciences Option) \*† Luyt, Noah Forrest

**Lydon, Daniel James** (Welding and Joining Specialization)

Majeed, Abdullah \* Malik, Gagan (Physical Sciences Option) \*<sup>†</sup>

Manboadh, Kristal

Mansy, Chris \*

Marinakos, Apostolos Elias

Marwari, Shray \*

Masak, Conrad Ryan (Welding and Joining Specialization) \*

Mathivannan, Keerthigan \*

Mehra, Shreshth (Mechatronics Option) \*

Metzger, Jeremy Dillon Bauman \*†

**Miclăuș, Alex-George** (Mechatronics Option) \*

Miglani, Radhika \*

Milek, Stephen Del Grosso \*

**Min, Shuangrun** (Life Sciences Option) \*†

Moore, Emily Julia \*

Mozaffari, Michael \*

Nakka, Paul Raju \*

Naud, Martin Forrest \*†

Ng, Tiffany (Computing Option) \*

Nguyen, Mai Khanh

**Obermayer, Mackenzie Carol** (Biomechanics Option) \*

Ong, Ivanseth Solis \*†

Opeoluwa-Calebs, Oluwatofolafun Damilola (Mechatronics Option)

Park, Jung-Eun Erica \*†

Patel, Karan \*

Patel, Manan Diptesh \*

Patel, Mann \*

Patel, Vaibhav Nilesh

Pereira, Zeeshan Rafiq

Pincus, Bennett J

Poon, Bryan Chi-Ho

**Poon, Julian Ho Yin** (Management Sciences Option) \*

Qian, Wenduo \*

Qin, Kathy \*

Quijano, Timothy Lorenz Liboro

Qureshi, Ayman Khalid

Raina, Tejant Singh (Mechatronics Option)

Randall, William Huey Gray Ravani, Attilio \*† Ren, Chenglong \* Saini, Ishan Sarathchandran, Advika \* Sarim, Muhammad \*† Schlotzhauer, Theodore Percy \*† Schneider, Alec John Mitchell

(Welding and Joining Specialization)

Schwartzel, Daniel Michael

Sellner, Kevin George \*

Selvarasa, Kaarusan \*

**Selvarasa, Kaurisan** (Mechatronics Option) \*

**Shah, Grishma** (Welding and Joining Specialization/Management Sciences Option)

Shahid, Sahifa \*

Shamsee, Ahsan Navaid

Shaw, Joshua Allister Hiram \*†

Singh, Lovepreet \*†

Singh, Nikhil \*

Singh, Shawn Rohan \*

**Sokic, Luka Michael** (Biomechanics Option) \*<sup>†</sup>

Song, Xianyu

Suherli, Shaela Brigitta \*

Sullivan, Robert Miles \*†

Tai, Felix Si Yuan

Tan, Ryan

Tanary, Ryan (Mechatronics Option)

Thurairajah, Kaveeshan Akan (Physics Minor) \*

Tiesma, Frederick Harrison Akira \*†

Tran, Kenton

Tran, Tommy

van Huuksloot, Erin Alexandra

Vance, Kodey Lloyd \*

Waldner Khan, Thomas Andrew

Wallace, Mark Elliott (Welding and Joining Specialization)

Walli-Attaei, Aaron (Management Sciences Option) \*

Wang, Edward \* Wang, Justin Fangzhi

Wang, Lei \*

**Wang, Rui Qin** (Management Sciences Option) \*

Watson, Scott Tong \* Werbowski, Drew Michael \*† Westrik, Spencer John \* Wey, Tze Sheun Vincent \*

Wong, Victor Hsiang-Yu

Wren, Malcolm Isaac \*

Wright, Toluwalope Oreoluwa David (Management Sciences Option)

Yang, Shi Jing

Yoo, Seungwoo

You, Gary \*† Yu, Yao

Zaman, Fardeen Tausif (Mechatronics Option)

**Zhang, Andrew Changan** (Mechatronics Option) \*

Zhao, Hanqi \* Zhao, Nina Ranran

Zhou, Jim Tong \*

MECHATRONICS ENGINEERING Agrahari, Abhinav \*†

Ahamed, Kamran Karim \*

Alnader, Hashem (Artificial Intelligence Option)

Atif, Hunnain (Management Sciences Option, Computing Option) \*

**Bai, Tonghe** (Artificial Intelligence Option) \*

Baksh, Aidan Khaleel \*†

**Banwait, Gursimmer** (Artificial Intelligence Option) \*

Baribeau, Julia Nicole Nixon \*

**Barlow, Andrew James** (Artificial Intelligence Option) \*<sup>†</sup>

**Bearne, Christopher Lewis Hiroshi** (Biomechanics Option) \*

Bhatt, Shivam

**Bird, Joshua Robert** (Artificial Intelligence Option) \*<sup>†</sup>

Black, Micah Jonathan \*

Blake, Leif (Physics Minor) \*

**Blatt, Joshua Alexandor** (Computing Option) \*

Borromeo, Joseph Anthony \*

Castro Lozano, Jorge Enrique

Chakma, Andrea (Management

Sciences Option, Computing Option) \*

\* – With Distinction
 † – Dean's Honours List

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Brett, Caleb Ian

Cai, Charlie \*

Chen, Michael

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Broekhoven, Derek Louis

Chau, Mackenzie Brian

Chauhan, Advait Singh \*

Chiang, Eric Shun-Li\*

Cho, Avery Ye-Jin \*†

Cho, Seonghan Clark, Liam Edward

Cui, Yuanlong \*

Dao, Eric-Khang Tan \*

Darhan, Harsimran Singh

Dawda, Hetal Bharat (Biomechanics Option) \*

del Rosso, Matthew Anthony \*

Dellosa, Joshua Raymund \*†

Diao, Ziyang \*

Divecha, Keahn Rushad \*

Docker, Colin Alexander \*

Doria, Luke Domenic \*†

Drew, Elizabeth Margaret \*

Du. Rachel \*

Faryna, Daniel

Fearon, Joshua

Feng, Ji Yuan (Artificial Intelligence Option) '

Fisher, Charles Randolph (Computing Option) \*\*

Gallant, Trevor Jason

Gans. Ariel \*

Option) \*1

Gencher, Matthew Evan \* Ghosh, Ayush (Artificial Intelligence

Gillespie-Friesen, Noah

Gopaul, Kavir Darron (Management Sciences Option) \*

Gupta, Nihit (Computing Option) \*

Gupta, Tushar

Han, Daeun (Computing Option) \*

Hao, Brandon

Hari, Shyam Siddharth \*

Hariharan, Saharsh

Harrington, Ryan John \*

Hashi, Laila

He, Jason Jiachen \*

Hernandez, David Lorenzo \*† Hillcoat, Sophie Rachel \*†

Hsu, Selina \*

Hu, Chu Qing (Artificial Intelligence Option) \*

Huang, Jimmy Ximing \*

Huynh, Vu Julian Hoa-Chau (Computing Option) \*

Hyeun, Jeesup (Software Engineering Option) \*

Itua, Itohansose Elaine (Artificial Intelligence Option)

Jain, Prashuk

Ju, Jerry Tian Jian (Computing Option) \* Kamal, Ahmad Nabil Yousef \*† Khan, Riyad Rafiq \* Khan, Wohsumoe Soyazhe (Computing Option) \*1 Kim, Ihn Hwan \*† Kim, Ryun \* Kim, Youngbin \* Kirton, Chad Anthony Cavour Kitaev, Alexander \*† Klassen, Nathan Daniel Steinmann \* Kletke, Dawson Walker \* Lai, Frank Yifeng \* Lam, Adrian Chun Wing (Computing Option) \* Le. Jane Le, Tuan Quang Minh \* Lee, Chun Hei Jeffrey (Artificial Intelligence Option) \*1 Lee, David Lee, Eric Younghoon \* Lee, Kaitlyn Victoria (Computing Option) \* Leung, Daniel J \* Li, Junsong Lin, James Jiayan Liu, George Yilong \* Liu, Shu Yan \*† Lumibao, John Michael \* Ma, Wei Min \* Mali, Aashmika \* Manani, Dhruv (Artificial Intelligence Option) \*† Manley, Thomas Allan Major Manohara, Nirosh \* Manoj Kumar, Kiran (Computing Option) \* Mathiarasu, Ganesh Krishna (Computing Option) \* Mears, Zachariah Henry Howden \*† Mehta, Jainish Manojkumar (Artificial Intelligence Option) \* Mei, Caitlyn \*

Minhas, Pritika (Computing Option) \*

Mittal, Ayush (Artificial Intelligence Option, Computing Option) \*

Moffett-Steinke, Kaelan Shane (Computing Option)

Mok, Gabriel Nicholas Mourcos, Andrew (Computing Option) \*

Murugathas, Thamilmaaran \*† Naik, Sameeksha \*

Nanji, Azum \*

Nasello, Michael Laurent \*

Navalyal, Suchir \*

Neliba, Kamila (Computing Option) \*

Nicholls-Harrison, Robert Benjamin (Management Sciences Option)

Niu, Longchen (Physical Sciences Option) \*

Noia, Vanessa Sykiotis

Ohayon, Sasha Armand \*

O'Leary, Elijah Jacob David \*

Palayew, Steven Ryan (Computing Option) \*

Pandey, Keshav Dutt

Parikh, Neil

Park, Junha \*

Patel, Dhruv Pramodkumar \*

Patel, Nimit Jaideep \*

Patel, Sohun

Patel, Vrut Maheshkumar \*

Pathak, Anoushka

Picozzi, Matthew Thomas (Management Sciences Option) \*\*

Piirsalu, Jacob Caleb (Artificial Intelligence Option) \*

Pistek, Urban \*

Policelli, Dylan Nicholas \*

Rahman, Parizeh Asaf

Ramon Gaona, Ana Paula (Biomechanics Option, Management Sciences Option) \*

Ray, Krishn Kiran Joshi \*

Reda, Younes \*

Reza, Syed Fayyad Ali

Rong, Zheng \*

Sabri, Faisal (Computing Option) \*

Sarwar, Sana \*

Schnapp, Benjamin David (Artificial Intelligence Option) \*

Senthilkumar, Rajkumar (Biomechanics Option) \*

Shahriar, Fahim Shahriar, Shafin (Management Sciences Option)

Shaju, Nick \*

Sharma, Sakshi

Shayaan, Syed Muhammad \*

Shin, Donghoon (Software Engineering Option) \*

\* – With Distinction

† – Dean's Honours List

**Shivakumar, Yathindra** (Artificial Intelligence Option) \*<sup>†</sup>

**Sivakaran, Thanushon** (Computing Option) \*†

**Skarica, Stephanie Thalen** (Computing Option) \*†

Srivastava, Ankit Jagdish

**Steiner, Emily Anne** (Computing Option) \*<sup>†</sup>

#### Sullivan, Christina Lee \*

Tam, Kendra Kum-Pui (Computing Option – Visual Culture in a Global Context Minor) \*

#### Tam, Kyle Michael Jiu-Zhi \*

#### Tamrakar, Suyog \*

**Tan, Zhuohua** (Management Sciences Option) \*

#### Tang, Lyndon Elliot \*†

**Terisno, Lania Philia** (Management Sciences Option) \*

Thiessen, Natalie Nicole Brawn \*

#### Tims, Nigel \*

**Tiou-Fat, Jason Eric Haoshan** (Software Engineering Option) \*

Tipold, Glenn Masao \*

**Tran, Celine Yen Phuong** (Management Sciences Option, Computing Option) \*

**Trehan, Aryan** (Artificial Intelligence Option) \*<sup>†</sup>

#### Truong, Ian $^{*}$

Unrau, Joshua Paul

**Vijikaran, Gobishan** (Management Sciences Option, Computing Option) \*

#### Von Friedl, Kathrine Elizabeth \*

**Vora, Hanz Jitendra** (Computing Option) \*†

**Walia, Kunal** (Artificial Intelligence Option) \*

Wang, Bill

Wang, Siyi \*

White, David Daniel \*

White, James Clermont Christopher Montana \*

Windhaus, Brian Anthony \*

Winter, Maximillian Thomas

**Wong, Felix KaHin** (Management Sciences Option) \*†

Wong, Jillian Claire \*

Wong, Yanni Chun Yen \*

Wu, Peixin \*

Wu, Xiaofei \*†

Wu, Zewen \*†

Xiao, George

**Yu, Jason Da Wei** (Artificial Intelligence Option) \*

**Yu, Xinyue** (Artificial Intelligence Option) \*<sup>†</sup>

#### Zanker, Teva \*

Zaryab, Mahad (Computing Option) \*\*

**Zhang, Mu En** (Artificial Intelligence Option) \*

Zhao, Yuchi \*

#### Zheng, Huanpeng \*

#### Zhou, Haoyu \*

**Zwiebel, Joshua Jack** (Artificial Intelligence Option) \*

#### CERTIFICATE IN CO-OPERATIVE EDUCATION IN RESEARCH

Annosantini, Adam Stuart Sante

#### CERTIFICATE IN GLOBAL EXPERIENCE

Itua, Itohansos Elaine

\* - With Distinction

† – Dean's Honours List



# SATURDAY **NORMAL STATURDAY CERENSES**

Degrees and diplomas from: UNIVERSITY OF WATERLOO FACULTY OF ENGINEERING

# Graduate Degrees

#### **DOCTOR OF PHILOSOPHY**

Ahmadloo, Fatemeh (Electrical and Computer Engineering) "Control Loop Interactions and Their Mitigation Schemes in VSC-HVDC Systems"

#### Alsharman, Mohammad Khaled

(Electrical and Computer Engineering) "Towards Learning Feasible Hierarchical Decision-Making Policies in Urban Autonomous Driving"

#### Barbosa de Queiroz, Rodrigo

(Electrical and Computer Engineering) "Scenario Modeling and Execution for Simulation Testing of Automated-Driving Systems"

#### Córdova Sota, Samuel Alejandro

(Electrical and Computer Engineering) "Operation of Microgrids with Conventional and Virtual Energy Storage Systems"

**Devadiga, Anurag Anand** (Electrical and Computer Engineering) "Analysis of Transformer Insulation Under High-Frequency Transients"

#### Fouladi Azarnaminy, Arash

(Electrical and Computer Engineering) "High-Performance Reconfigurable Piezoelectric Resonators and Filters for RF Frontend Applications"

Gul M Khan, Omniyah (Electrical and Computer Engineering) "Congestion Management in Active Distribution Networks and its Cyber Security"

#### Hussein, Abdalla Mohamed

Abdelaziz Mahmoud (Electrical and Computer Engineering) "Operating Multi-User Transmission for 5G and Beyond Cellular Systems"

#### Jarrar, Ibrahim Marwan Mousa

(Electrical and Computer Engineering) "A Study on Turn-to-Turn Insulation of Medium Voltage Motors Fed by Variable Frequency Drives"

Khaira, Navjot Kaur (Electrical and Computer Engineering) "Reconfigurable Cryogenic Microwave Devices Using Low Temperature Superconducting rf-SQUIDs" Khan, Asif Abdullah (Electrical and Computer Engineering) "High-Performance Piezoelectric Nanogenerators Based on Hybrid Perovskite Nanomaterials for Energy-Harvesting"

**Li, Zhuoran** (Electrical and Computer Engineering) "Visual Content Characterization Based on Encoding Rate-Distortion Analysis"

**Mao, Chunyu** (Electrical and Computer Engineering) "Scaling Permissioned Blockchains via Sharding"

Matar, Amr Salaheldin Hashem (Electrical and Computer Engineering)

"Resource and Interference Management in UAV-Cellular Network"

Miyoshi, Teppei (Electrical and Computer Engineering) "Theoretical Studies on Terahertz Quantum Cascade Lasers for Device Design Guideline"

Parsapour, Mahsa (Electrical and Computer Engineering) "Understanding Feedforward Feedback Controller Components In Human Movement Through Optimization-Based Approaches"

Peralta Moarry, Dario Andres (Electrical and Computer Engineering) "Modeling and Operation of Ground Source Heat Pumps in Electricity Markets Considering Uncertainty"

**Pil Ali, Abdollah** (Electrical and Computer Engineering) "Grating Technology and System Development for High-Resolution X-Ray Phase-Contrast Imaging"

Stangherlin, Kleber Hugo (Electrical and Computer Engineering) "Secure and Unclonable Integrated Circuits"

**Tekcan, Burak** (Electrical and Computer Engineering) "III-V Semiconductor Nanowire Array Avalanche Photodiodes"

Van Kasteren, Bradley Edward (Electrical and Computer Engineering) "Emerging Semiconductor Nanostructure Materials for Single-Photon Avalanche Diodes"

#### Vera Solorzano, Enrique Gabriel

(Electrical and Computer Engineering) "Planning of Multi-Microgrids Considering Uncertainties and Spatial Characteristics"

Wang, Siyi (Electrical and Computer Engineering - Nanotechnology) "Thermal Dynamic Imaging and Thermal Management for Quantum Cascade Lasers"

Xue, Liang (Electrical and Computer Engineering) "Privacy-Preserving and Regulation-Enabled Mechanisms for Blockchain-Based Financial Services"

Yazdani, Farzad (Electrical and Computer Engineering) "Investigations Into Impedance Tuners for the Next Generation of Communication Systems"

#### **MASTER OF APPLIED SCIENCE**

Abdelkareem, Youssef Abdelrahman Fathi Ahmed (Electrical and Computer Engineering)

Aghamohammadi, Hamid (Electrical and Computer Engineering)

Alam, Nova (Electrical and Computer Engineering)

**Azizi, Negin** (Electrical and Computer Engineering)

Ba Raean, Saleh Mohammed Salem (Electrical and Computer Engineering)

Bahlmann, Andrew Richard (Electrical and Computer Engineering)

Barkhordar-pour, Hoda (Electrical and Computer Engineering)

**Bastarache, Jean-Luc** (Electrical and Computer Engineering)

**Cai, Yifan** (Electrical and Computer Engineering)

**Cai, Zhiping** (Electrical and Computer Engineering)

**Cerkauskas, Cyrus Xu** (Electrical and Computer Engineering)

**Dempster, Rowan** (Electrical and Computer Engineering)

Elghalhoud, Omar Mahmoud Rida Abdulrahman (Electrical and Computer Engineering)

Fardno, Fatemeh (Electrical and Computer Engineering)

**Gao, Zehan** (Electrical and Computer Engineering)

**Gu, Zhao** (Electrical and Computer Engineering)

**He, Ziran** (Electrical and Computer Engineering)

**Houk, Anna Maria** (Electrical and Computer Engineering – Quantum Information)

Huang, Fangzheng (Electrical and Computer Engineering)

Jha, Piyush (Electrical and Computer Engineering)

**Jin, Huixin** (Electrical and Computer Engineering)

Jodhka, Tejasvi Singh (Electrical and Computer Engineering)

**Kananian, Pouya** (Electrical and Computer Engineering)

**Klashtorny, Artem** (Electrical and Computer Engineering)

Lakhani, Ahmad (Electrical and Computer Engineering)

**Lee, Hurn Ook** (Electrical and Computer Engineering)

**Li, Chao** (Electrical and Computer Engineering)

**Lin, Shizhe** (Electrical and Computer Engineering)

**Long, Guofei** (Electrical and Computer Engineering - Nanotechnology)

**Ma, Haien** (Electrical and Computer Engineering)

**Nooruddin, Sheikh** (Electrical and Computer Engineering)

**Priana, Farhana Hossain** (Electrical and Computer Engineering)

**Robitaille, Marcel Joseph** (Electrical and Computer Engineering)

**Sabour, Negar** (Electrical and Computer Engineering)

Saha, Soumyadeep (Electrical and Computer Engineering -Nanotechnology)

Schmidt, Lukas Fridolin (Electrical and Computer Engineering)

Tang, Xikai (Electrical and Computer Engineering)

**Tao, Liran** (Electrical and Computer Engineering)

Theivendran, Karthikan (Electrical and Computer Engineering)

**Wang, Jun** (Electrical and Computer Engineering)

Yigzaw, Samuel Mulatu (Electrical and Computer Engineering)

**Zhou, Xiang** (Electrical and Computer Engineering)

#### **MASTER OF ENGINEERING**

**Divya** (Electrical and Computer Engineering)

**Aggarwal, Adish** (Electrical and Computer Engineering)

**Aggarwal, Tanvi** (Electrical and Computer Engineering)

**Agrawal, Sheena** (Electrical and Computer Engineering)

Allahabadi, Hina (Electrical and Computer Engineering)

Alotary, Abdulrahman (Electrical and Computer Engineering)

**Amiri, Tahereh** (Electrical and Computer Engineering)

**An, Di** (Electrical and Computer Engineering)

**Ansari, Areeb Ullah** (Electrical and Computer Engineering)

Arulselvam, Sahithyaa (Electrical and Computer Engineering)

Arumugam, Shanthi Meena (Electrical and Computer Engineering)

**Bachani, Juhi Vasudev** (Electrical and Computer Engineering)

**Baillie, Katherine** (Electrical and Computer Engineering)

**Bal, Subham Biswajit** (Electrical and Computer Engineering)

Baladhandapani, Aswathy (Electrical and Computer Engineering)

**Baluja, Swapnil** (Electrical and Computer Engineering)

**Baskaran, Poojitha** (Electrical and Computer Engineering)

**Batra, Sushant** (Electrical and Computer Engineering)

**Batta, Prikshit** (Electrical and Computer Engineering)

Bhatia, Rubani (Electrical and Computer Engineering)

**Bisen, Mimansa** (Electrical and Computer Engineering)

**Bobbiti, Shreya Reddy** (Electrical and Computer Engineering)

**Borole, Sanket Subhash** (Electrical and Computer Engineering)

**Bremner, Eric** (Electrical and Computer Engineering)

**Burt, Michael Jared** (Electrical and Computer Engineering – Electric Power Engineering)

**Cao, Jingtao** (Electrical and Computer Engineering)

**Chang, Xinyi** (Electrical and Computer Engineering - Electric Power Engineering) **Chauhan, Vivek** (Electrical and Computer Engineering)

**Cheng, Ruilin** (Electrical and Computer Engineering)

**Chopra, Kritika** (Electrical and Computer Engineering)

**Chopra, Vimanyu** (Electrical and Computer Engineering)

**Deshpande, Vaishnavi Amod** (Electrical and Computer Engineering)

Dhole, Shraddha Digambar (Electrical and Computer Engineering)

**Dong, Tingcen** (Electrical and Computer Engineering)

Fan, Zekun (Electrical and Computer Engineering)

**Feroz, Saad** (Electrical and Computer Engineering - Electric Power Engineering)

**Gao, Zhiyue** (Electrical and Computer Engineering)

**Geng, Xiaoshuai** (Electrical and Computer Engineering)

**Geng, Zhuliang** (Electrical and Computer Engineering)

**Gong, Zhen** (Electrical and Computer Engineering)

**Gore, Ritika Shantaram** (Electrical and Computer Engineering)

**Gossain, Hardik** (Electrical and Computer Engineering)

**Guntimadugu, Suraj Raju** (Electrical and Computer Engineering)

**Guo, Chen** (Electrical and Computer Engineering)

**GUPTA, SHUBHANKI** (Electrical and Computer Engineering)

Hao, Sheng (Electrical and Computer Engineering)

Hara, Bipinjot Kaur (Electrical and Computer Engineering)

Hoskin, David John (Electrical and Computer Engineering)

Huang, Chenxin (Electrical and Computer Engineering)

Huang, Xin (Electrical and Computer Engineering)

**Indarapu, Abhinav** (Electrical and Computer Engineering)

**Iqbal, Azza** (Electrical and Computer Engineering)

**Ishleen, Ishleen** (Electrical and Computer Engineering)

**Islam, Akib** (Electrical and Computer Engineering)

Jain, Charvi (Electrical and Computer Engineering)

Jain, Priyanka (Electrical and Computer Engineering)

**Jin, Kangwei** (Electrical and Computer Engineering)

**Jolly, Harpreet** (Electrical and Computer Engineering)

**Kakkar, Snigdha** (Electrical and Computer Engineering)

Kalakkadu Bhaskaran, Sai Abhishek (Electrical and Computer Engineering)

Kanchanakuntla, Sindhuja (Electrical and Computer Engineering)

**Kaswan, Kashish** (Electrical and Computer Engineering)

**Kaur, Harsimran** (Electrical and Computer Engineering)

Kaushik, Parnika (Electrical and Computer Engineering)

Khurana, Hitesh (Electrical and Computer Engineering)

Khwaja, Sarah Waheed (Electrical and Computer Engineering)

**KOTHURI, SRI TARUN** (Electrical and Computer Engineering)

Laad, Uditya Uday (Electrical and Computer Engineering)

Latne, Tejas Girish (Electrical and Computer Engineering)

**Lenos, Jared Nikolai** (Electrical and Computer Engineering)

Li, Fengyan (Electrical and Computer Engineering)

**Li, Jin** (Electrical and Computer Engineering – Electric Power Engineering)

**Li, Mingyue** (Electrical and Computer Engineering)

**Li, Xiaoke** (Electrical and Computer Engineering)

**Li, Xinyang** (Electrical and Computer Engineering)

**Li, Yang** (Electrical and Computer Engineering)

**Li, Ziyue** (Electrical and Computer Engineering)

**Lin, Yanhao** (Electrical and Computer Engineering)

**Lin, Zhen Rui** (Electrical and Computer Engineering)

Lingamsetty, Naga Yoshita (Electrical and Computer Engineering)

**Liu, Aiyuan** (Electrical and Computer Engineering)

Liu, Yuheng (Electrical and Computer Engineering)

**Liu, Zihan** (Electrical and Computer Engineering)

**Luo, Xuechen** (Electrical and Computer Engineering)

**Luong, Brian** (Electrical and Computer Engineering)

Mahajan, Tejaswini (Electrical and Computer Engineering)

Mehta, Dharaben Mineshkumar (Electrical and Computer Engineering)

Meshram, Falgun Dnyanendra (Electrical and Computer Engineering)

**Mistry, Heli** (Electrical and Computer Engineering)

**Mo, Xiaoxue** (Electrical and Computer Engineering)

Mody, Krutik Mukesh (Electrical and Computer Engineering)

Mohammed, Abdul Sadiq (Electrical and Computer Engineering)

Mohammed, Khaja Amir Kafeel (Electrical and Computer Engineering)

Mohammed, Suhail Tharappel (Electrical and Computer Engineering)

Momin, Arshad Mohammed Shafi (Electrical and Computer Engineering)

Mostafa, Omar Walid Ahmed Ahmed (Electrical and Computer Engineering)

Muppavarapu, Venkata Akhil (Electrical and Computer Engineering)

**Murali, Vidhya** (Electrical and Computer Engineering)

Naeem, Muhammad Osama (Electrical and Computer Engineering)

Naik, Harmin Kartik (Electrical and Computer Engineering)

**Nambiar, Shrenik** (Electrical and Computer Engineering)

**Oahimire, Princess Gloria** (Electrical and Computer Engineering)

**Panara, Jay** (Electrical and Computer Engineering)

**Pang, Chen** (Electrical and Computer Engineering)

Parikh, Dhrumilkumar Sandipkumar (Electrical and Computer Engineering)

Patel, Dhairya Ajitkumar (Electrical and Computer Engineering)

**Patel, Nagma Salimbhai** (Electrical and Computer Engineering)

**Patel, Parth NITINBHAI** (Electrical and Computer Engineering)

Patel, Parth Bhadreshkumar (Electrical and Computer Engineering)

Patel, Rishi Atul (Electrical and

Computer Engineering) Patel, Riya Jitendrakumar (Electrical and Computer Engineering)

Patel, Yash Ketanbhai (Electrical and Computer Engineering)

Perichiappan, Swetha Perial (Electrical and Computer Engineering)

**Piguing, Paolo Cristopher Mapa** (Electrical and Computer Engineering -Electric Power Engineering)

**Potnis, Sagar Sanjeev** (Electrical and Computer Engineering)

**Prajapati, Chinmay Bakuleshkumar** (Electrical and Computer Engineering)

**Qaiser, Rameesha** (Electrical and Computer Engineering)

Ramesh, Sujitha (Electrical and Computer Engineering)

Ratmono, Abdul-Halim Budi Santoso (Electrical and Computer Engineering)

**Ren, Chendi** (Electrical and Computer Engineering - Electric Power Engineering)

**Ruan, Ziming** (Electrical and Computer Engineering)

**Samaha, Edmond** (Electrical and Computer Engineering)

Samanta, Rumna (Electrical and Computer Engineering)

**Sandhu, Navjot Singh** (Electrical and Computer Engineering)

**Sasidharan, Vijiithaa** (Electrical and Computer Engineering)

Satheesh, Premchander (Electrical and Computer Engineering)

**Shah, Juhi Parag** (Electrical and Computer Engineering)

**Shaheer, Mudabir** (Electrical and Computer Engineering)

**Shahpar, Bahareh** (Electrical and Computer Engineering)

**Sharma, Aditya** (Electrical and Computer Engineering)

**Sharma, Himalaya** (Electrical and Computer Engineering)

**Sharma, Rahul** (Electrical and Computer Engineering)

**Shi, Anyi** (Electrical and Computer Engineering)

**Shi, Hongyi** (Electrical and Computer Engineering)

**Singh, Amolpreet** (Electrical and Computer Engineering)

**Singh, Gursahib** (Electrical and Computer Engineering)

**Singh, Karanjot** (Electrical and Computer Engineering)

**Singh, Navneet Ishan** (Electrical and Computer Engineering)

**Singh, Ravideep** (Electrical and Computer Engineering)

**Singh, Sumati** (Electrical and Computer Engineering)

**Sivaraman, Sriram** (Electrical and Computer Engineering)

**Song, Haoran** (Electrical and Computer Engineering)

**Song, Hongyao** (Electrical and Computer Engineering)

**Song, Qian** (Electrical and Computer Engineering)

**Sun, Qiyang** (Electrical and Computer Engineering)

**Sun, Shaowei** (Electrical and Computer Engineering)

**Sun, Yuan** (Electrical and Computer Engineering)

Suresh, Vidya Shree (Electrical and Computer Engineering)

Suryanarayan, Shridhar (Electrical and Computer Engineering)

Talaviya, Niravkumar Vinubhai (Electrical and Computer Engineering)

Taneja, Mukul (Electrical and Computer Engineering)

Taneja, Sunidhi (Electrical and Computer Engineering)

Tao, Yuan (Electrical and Computer Engineering)

**Teli, Mrunal** (Electrical and Computer Engineering)

Thayyil, Gopishankar (Electrical and Computer Engineering)

**TINGRE, OMKAR SATISH** (Electrical and Computer Engineering)

Torcato, Shannon Bosco Francis (Electrical and Computer Engineering)

Uttarwar, Priyanka Chandrakant (Electrical and Computer Engineering)

VADALIA, SHYAM KIRITKUMAR (Electrical and Computer Engineering)

Vaniya, Hardik Ravajibhai (Electrical and Computer Engineering)

Vashishth, Adi (Electrical and Computer Engineering)

**Wan, Yulin** (Electrical and Computer Engineering)

Wang, Haoran (Electrical and Computer Engineering)

Wang, Herong (Electrical and Computer Engineering)

**Wang, Lei** (Electrical and Computer Engineering)

Wang, Yihan (Electrical and Computer Engineering)

Wang, Yutong (Electrical and Computer Engineering)

Watchi Hayek, Maher (Electrical and Computer Engineering)

**Wu, Kunyuan** (Electrical and Computer Engineering)

Xie, Kunyang (Electrical and Computer Engineering)

**Xu, Shuoni** (Electrical and Computer Engineering)

Xu, Xiaodong (Electrical and Computer Engineering)

Yang, Bai (Electrical and Computer Engineering)

Yang, Kaihua (Electrical and Computer Engineering)

**Ye, Sitong** (Electrical and Computer Engineering)

Yuan, Runze (Electrical and Computer Engineering)

**Zafar, Laeeq** (Electrical and Computer Engineering)

Zanzarukiya, Abhi Rajendra (Electrical and Computer Engineering)

**Zhan, Chengzheng** (Electrical and Computer Engineering)

**Zhang, FengQi** (Electrical and Computer Engineering)

**Zhang, Hanzhe** (Electrical and Computer Engineering)

**Zhang, Mingrui** (Electrical and Computer Engineering)

**Zhao, Fengnian** (Electrical and Computer Engineering)

**Zhou, Zihang** (Electrical and Computer Engineering)

**Zhu, Yifan** (Electrical and Computer Engineering)

**Zuo, Siyuan** (Electrical and Computer Engineering)

#### **GRADUATE DIPLOMA**

**Lenos, Jared Nikolai** (Software Engineering)

# Undergraduate Degrees

#### **BACHELOR OF APPLIED SCIENCE**

COMPUTER ENGINEERING Academia, Raphael Buenviaje \* Achimescu, Anda Adriana \* Acosta, Jesse Guillermo \* Aggarwal, Dhruv Aguilar, Santiago \*† Ahmed, Faduma Mahad \* Alam, Muhammad Hamza Anton, Satyaana Arakcheev, Daniel \* Arora, Manbir Singh Baba, Joanne \*† Bai, Yingjian Bakker, Braden Gerrit Oldejans (Management Sciences Option) \*† Banerjee, Arhan Bao. Leo \* Bawa, Arjun (Communication and Signal Processing Specialization) \* Beqo, Patrik \* Bhardwaj, Kartikeya Janendrakumar \* Bhatt. Jai Vinish Bhattacharjee, Siddharth Bhimani, Jawad \* Boote, Trevor Thomas James Booth, Mitchell David \* Brennan, Kevin Mitchell Gordon Cai, Catherine Jiahua (Artificial Intelligence Option) \* Cai, Yanqi \* Chacko, Caleb Thomas \* Chang, Alisa Sara \* Chen, Alex Chen \* Chen, Ze Liang \*† Cherney, Cole \* Chik, Kevin Chun-Ting Chou, Tzu-Chun \* Chowdhury, Nur-E Safwaan Haider Chugh, Ruhani (Artificial Intelligence Option) \* Chung, Colin Daniel \* Cui, Shurui \* Cunha, Joshua Martins \*

Dahiya, Karan \* Datta, Aurchon \* De Luca, Anthony Natale \* De Souza, Shimona (Management Sciences Option) \* Demirel, Omer Faruk \* Deol, Kawalpreet Ding, Wen Qi \* Du, Rui Fei Dullaert, Ryan Rumeng Xie (Artificial Intelligence Option) \* Ekundayo, Isemi \* Emaish, Sultan \* Erathasari, Gautham \* Esfarayeni, Nita (Communication and Signal Processing Specialization) \* Farlow, Robert William Foster, Aidan Ronald Gordon Fourchalk, Patrick George Zung-Wah \* Gallant, Morgan Anthony \* Gao. Chen Hao \* Garcia Moreno, Jesus Francisco \* Grewal, Ikamdeep Singh \* Guo, Si Qi \* Guo, Zheng Hao \*† Haber, Aviv Jesse Dawson \*† Han. Gitae Han, Lucy Lu \* Hartman, Nathan Daniel James \*† He, Alvin Wenjun \* He. Tiantian \*† Hem, Emily Socheta \* Heza, Ayesha Hodges, Quinn Henry \* Hopkins, Anthony John Paul Norman \*† Hou, Tianhong \*† Hsu, Stephanie Cywie \* Hua, Andrew \*† Hua, Xiaoyun \* Huang, Rennie \* Hussain, Umar Farooq \* Jabbour, Alexander \* Jiang, Hong Bin \*

Ju, Haoyang \*† Kabir, Nikita Katugaha, Sathira Govindunath \* Khan, Ansar Zunnoon \*† Khan, Muhammad Ayan \* Khan, Salmaan (Economics Minor) \*† Khanna, Yug \* Khardenavis, Yuvika \*† Khattak, Saifuddin \*† Khurana, Tanmay \* Kim, Daniel Byungha \* Kim, Kaeun (Artificial Intelligence Option) \* Kim, Sanghun Eric \* Kluev, Yulia Tamara Kuszmar, Robert \*† Ladd, Andrew Lam, Benny Daw Yeong \*† Lam, Michael Andrew Jay Lau, Anthony Marcus \*† Lee, Catherine \* Lei, Grace Li, Chengyang (Statistics Option) \* Li, Chenyang \*† Li, Mervin \* Li, Ricky Jia Le Li, Ruo Yu \* Li, Shizhen \*† Li, Wen Hao Li, William \* Li, Yuchuan \* Li, Yuyang Lin, Ga-Chun \* Lin, Zhiming Liu, Caroline \* Liu, Jason Jie Shen \* Liu, Jing \*† Liu, Shuhan \* Liu, Ted Lamson \*† Liu, Tong \* Liu. Xialin \*† Liu, Zhe \* Liu, Ziqian \*†

\* – With Distinction

† – Dean's Honours List

Lohtia, Aditi (Management Sciences Option) \* Lou, Alain Zeyu \* Loui, Courtney Mui-Sum Lu, David Yiduo (Artificial Intelligence Option) \* Lu, Eugene Luong, Emily \* Lyu, Mengze Ma, Jeff (Artificial Intelligence Option - Psychology Minor) \*\* Maclean, Rian James Maghsoudlou, Kourosh \*† Mahmud, Muaaz \* Malik, Yash \* Manchanda, Harshit Mansoor, Moyez Farook \* Mathur, Dhruv \* Mazza, Dante Mehta, Hetansh Nirajkumar Miller-Junk, Devon Scott \*† Mistry, Chintan Sureshkumar \* Monga, Gurubaani Priya Naguleswaran, Girujan \* Natesh, Chandra Kumar Ashish \*† Nesarajah, Shane Ashanth Ni, Chu Han \* Ni, Quancong Niu, Bryan \* Nogueira Serafim de Araujo, Lucas \* Pande, Abhijeet (Communication and Signal Processing Specialization) \* Panigrahy, Yathartha (Management Sciences Option) \* Parthasarathy, Harish Patel. Fenilkumar \* Patel, Rushil Anilkumar \* Patel, Samarth Vimarshkumar \*† Patel, Samruddha Dhiren \* Patel, Shyam Patel, Vishwesh Rohitkumar \* Pathak, Riya \* Pattanaik, Satwik \* Peng, Andrew S\* Pinto, Kyle Ryan \* Qin, Chenyong (Entrepreneurship Option) \* Qin. Qin \* Radwan, Khalid Medhat \*

Rahman, Amio Mahmudur \* Rahman, Iram \* Ratnarajah, Nirosh \* Rehman, Faizaan Haneef \*† Ren, Andy \* Roorda, Joshua John Klapwyk \* Ryu, Kyunghan \* Saha, Puranjoy \* Sanchez, Sergio \* Save, Shanay Sawyer, Michael John Felix \* Shah, Tayef Mahmud Shapkota, Shusil \* Sharma, Madhur Kumar \* Sharma, Raghav Shen, Tony Shi, Emily \* Shi, Ryan Dingrui \* Shikder, Efaz Aumee \* Shim, Hyunnam \* Sidhu, Agamjyot Singh Singh, Arnav \* Singhal, Siddhant Sirimanna, Akash Induwara \*† Siu, Gabriel Christian Srivatsa, Shreyas \* Su, Chang Su, Rebecca \*† Sweet, Connor Seamus (Artificial Intelligence Option) \* Tang, Darren Chun Ho \* Tanveer, Tayyaab \* Tayal, Anushka (Entrepreneurship Option) \* Thukral, Pratham \* Tien, Adriene Tin-Sing Tirukachi, Manasi \* Tran, Andrew \* Tse, Kaitlyn Wingyan Udun, Muradil Uygur \* Vallejo Cevallos, Steven David Van Den Hoven, Daniel Joseph \* Varone, Dillon Michael \* Varriale, Christian Joseph Vemulapalli, Rupakeerthana \* Vercillo, Stefan Noah \* Verma, Naman Victorkumar, Richmond \*

Wan, Anson Wang, Anne \* Wang, Conan \* Wang, Guanyu Wang, Jiaxi (Management Sciences Option) \* Wang, Sibo \* Wang, Yongkang \* Wei, Jiamou Wei, Yun Kai \* Wu, Bill \* Wu, Darryl Jiayin \* Wu, Ivas \* Wu, Qianyi Wu, Shuangai \* Wu, Yiru \* Xia, Raymond \* Xiao, Julie Zhu \* Xing, Kehan \*† Xu, Jintao \*† Xu, Qiang \* Yan, Simon Zijian \* Yang, Haolong \* Yang, Jia Rui \* Ye, Alice (Management Sciences Option, Artificial Intelligence Option) \* Ye, James ZiJie Yin, Ruohao \* Yu, Daniel Shanming \* Zhang, Enting \* Zhang, Gerald HZ \* Zhang, Haorui \* Zhang, Jianxing \*† Zhang, Jiarui \*† Zhang, Nicole Jia-Wen \* Zhang, Richard Long Zhang, Tianyi Zhang, Yifan Zhao, Heng \* Zhao, Jason Zhao, Pei An \* Zheng, Haochen \* Zhou, Kevin \* Zhou, Yi Xuan \* Zhou, Yikai \* Zhu, Lixiang \* Zhu, Max \*† Zhuang, Ziyi

<sup>† –</sup> Dean's Honours List

#### ELECTRICAL ENGINEERING Alant, Johan \*

Aneke, Ojorumi Oluwadamilare \*† Asan, Feyza Nur (Artificial Intelligence Option) \*†

Birbal, Vinai Daryl \* Bojcev, Vojdan \*

**Chambers, Francis Alan** (Communication and Signal Processing Specialization) \*

Chandan, Kunal Dobre, Florin Daniel \*† Doering, Devinn Joseph \*† Du, Bingjian \*† Fahmy, Yehia \*

**Fan, Ziqian** (Entrepreneurship Option)

Fediw, Alexander Stefan

Ganapathy Senthilkumar, Shunethra \*

Gu, Liufang \*

Guarisma, Yrina \*†

Hardy, David Fernando \*

Ho, Charmaine \*

Hu, Chun-De \*

Hu, Dingjie \*

Hussain, Ahmad Abrar

Jones, Colin Jonathan Clark \*

Joung, Seong Hyeon \*

Kakade, Rishikesh

Kochhar, Rohit

Lee, Sandy Yikay \*

Li, Yuhai \*

Lisk, Branden Alexander \*†

Liu, Marley \*

**Mroczek, Jakub Leonard** (Computing Option) \*

Newton, Brian Theodore \*

Ouslis, Sebastian Elo \*

**Overton, Kiersten Ainsley** (Communication and Signal Processing Specialization) \*†

Paquin, Nicholas Alexander \*

Paraschuk, Thomas William \*

Petersen, Caleb Raymond

Rosehart, Thomas William \*

**Salahuddin, Jawaad** (Artificial Intelligence Option)

Sharma, Sarvath \*

Simard, Audrée \*

Singh, Jonathan Bhagwan \*

Sood, Rajan

Sookoo, Naveela Nandini (Communication and Signal Processing Specialization) \*\* Srinivasan, Aditya \* Steblyk, Kateryna Tarasi \* Stracovsky, Roy \* Wang, Ningxuan \*† Wang, Zizhuo \* Wu, Qinying \* Yu, Shiu-Chung \* Zaman, Zahin Mohammed (Artificial Intelligence Option) \* Zargari, Shadi Saba \* Zhang, Luqi \*† Zhang, Wanting \* Zhang, Xiaofei \*

#### CERTIFICATE IN CO-OPERATIVE EDUCATION IN RESEARCH

Chandan, Kunal Liu, Ziqian

\* – With Distinction

† – Dean's Honours List



# AFTERNOON CEREMONY

Degrees and diplomas from: UNIVERSITY OF WATERLOO FACULTY OF ENGINEERING

# Graduate Degrees

#### **DOCTOR OF PHILOSOPHY**

Abou Chacra, David (Systems Design Engineering) "Modern Object and Visual Relationship Detection in Images from a Critical, Cognitive and Data Perspective"

Afshari, Mehdi (Systems Design Engineering) "Spatially Constrained Compound Magnification Framework for Histopathology Whole Slide Images"

**Almarzooqi, Khalfan** (Chemical Engineering)

"Graphene Based Membranes for High Salinity, Produced Water Treatment by Pervaporation Separation"

**Cheraghi, Elahe** (Systems Design Engineering)

"Fabrication and Evaluation of Polymer Nanocomposites for Space Radiation Shielding Application"

**Duggins, Peter** (Systems Design Engineering)

"Learning and Decision Making in Social Contexts: Neural and Computational Models"

**Ebrahimian, Arash** (Systems Design Engineering)

"Human Middle Ear: Material Characterization, Analysis of Effects of Uncertainties, and Investigation of Impacts of Medical-Device Attachment"

**G Menon, Kavitha** (Chemical Engineering)

"Scheduling Process Operations Under Uncertainty and Integration with Long Term Planning"

**Gao, Xiguang** (Chemical Engineering - Nanotechnology) "Using Polymers to Improve the Performance of Sulfur and Organic Cathodes"

**Heydari Beni, Nargess** (Systems Design Engineering) "Extracting ECG-Based Cardiac Information from the Upper Arm"

Hosseini, Seyedeh Maryam (Systems Design Engineering) "Secure Computation and Proportionally Fair Collaboration in Federated Learning of Histopathology Images"

#### Jubinville, Dylan (Chemical Engineering)

"Highly Filled, Durable, and Sustainable Wood-Plastic Composites from Recycled Thermoplastics"

**Kim, A-Reum** (Chemical Engineering – Nanotechnology) "Interface Dynamics of Soft Solids

With Liquids, Solids, and Gels"

Lee, Yebin (Chemical Engineering – Nanotechnology) "Design of Functional Coating on Cellulose Nanocrystals for Advanced Applications"

**Li, Zhelun** (Chemical Engineering) "Polydopamine-Based Thin Film Composite Membranes for Pervaporative Concentration of Potassium Acetate Solution"

**Liu, Jiayu Alexander** (Systems Design Engineering) "Improvements in Field Emission Properties of Carbon Nanotube Field Emitters"

**Misaghian, Niloofar** (Chemical Engineering) "Multiphysics Pore Network Simulation of Electrochemical

Devices as a Design Tool"

Nasr, Ali (Systems Design Engineering) "Design, Dynamics, and Control of Active-Passive Upper-Limb Exoskeleton Robots"

**Sabtan, Bader** (Systems Design Engineering)

"Human Factors in Esports: Investigating Performance Measures, Coaching Practice, and Stress Training in League of Legends"

Vitelli, Michael Joseph (Chemical Engineering) "Improving Productivity in Bioreactors

Through Control of Cell Heterogeneity" **Wang, Jiaqi** (Systems Design Engineering - Nanotechnology) "Nanocomposite Based Infrared Photo Thermo Electric Detectors"

Zarshenas, Kiyoumars (Chemical Engineering) "Advanced Membrane for Desalination and Ion Separation Application"

#### **MASTER OF APPLIED SCIENCE**

**Abdel Hameed, Marawan** (Systems Design Engineering)

Afzal, Daniel (Chemical Engineering)

**Bell, Sydney Marie** (Systems Design Engineering)

**Bouzari, Negin** (Chemical Engineering)

**Caldwell, Adam Winston** (Systems Design Engineering)

**Cleland, Keith** (Chemical Engineering)

**Durmanova, Ekaterina** (Systems Design Engineering)

**Emir, Ebru** (Systems Design Engineering)

**Ferguson, Peter Spencer George** (Systems Design Engineering)

Flynn, Scott Martens (Chemical Engineering - Nanotechnology)

Fu, Haoyu (Chemical Engineering)

Izquierdo Martinez, Alfonso (Chemical Engineering)

Jaworski, Pawel (Systems Design Engineering)

**Kamali, Seyedehsara** (Chemical Engineering)

**Kim, Kyuyeon** (Chemical Engineering)

**Lahlou, Mariam** (Systems Design Engineering)

Ly, Sam (Chemical Engineering)

**Lyne, John** (Systems Design Engineering)

**Manning, Max Ian Alexander** (Systems Design Engineering)

**Nadalian, Soheila** (Systems Design Engineering)

**Nurzhanov, Merlan** (Chemical Engineering)

**Olfat, Seyed-Mahdi** (Systems Design Engineering)

**Post, Matthew** (Systems Design Engineering)

Rodriguez Ruiz-Andino, Irene (Chemical Engineering - Water)

Schaef, Laura Kathleen (Systems Design Engineering)

**Seenivasan, Renuka Devi** (Systems Design Engineering)

**Sharma, Gauri** (Systems Design Engineering)

**Sivan, Vignesh** (Systems Design Engineering)

**Srinivasan Rammanoharan, Sneha** (Systems Design Engineering)

Sy, Jing (Chemical Engineering)

Yang, Huiyi (Chemical Engineering -Nanotechnology)

#### **MASTER OF ENGINEERING**

**Bei, Zhiqi** (Systems Design Engineering)

**Burman, Ronnit Roy** (Systems Design Engineering)

**Chen, Junwei** (Systems Design Engineering)

**Chen, Yifan** (Systems Design Engineering)

**Ding, Zhuxian** (Systems Design Engineering)

Flanagan, Nicholas (Systems Design Engineering)

Hao, Wei (Systems Design Engineering)

HASHEMPOURNOSRATABADI, ALI (Chemical Engineering)

Kang, Kaidi (Chemical Engineering)

Karmakar, Rijubak (Chemical Engineering)

**Liu, Wenhan** (Systems Design Engineering)

Palakollu Venkataramana, Renuka Devi (Chemical Engineering)

**Qi, Lu** (Chemical Engineering)

**Rezazadeh, Seyedfaridoddin** (Chemical Engineering)

**Shah, Kushan Bhavin** (Chemical Engineering)

Shaikh, Tabish (Chemical Engineering)

**Sharma, Shobhit** (Chemical Engineering)

**Sudswong, Wanetha** (Systems Design Engineering)

**Xu, Xiongyi** (Systems Design Engineering)

Yang, Bokai (Chemical Engineering)

Zagorodski, Nikita (Systems Design Engineering)

**Zhang, Shuo** (Systems Design Engineering)

**Zhou, Haotian** (Systems Design Engineering)

**Zhou, Yunan** (Systems Design Engineering)

#### **GRADUATE CERTIFICATE**

Saadatmand Hashemi, Sanaz (University Teaching) Uereten, Ece (University Teaching)

\_\_\_\_\_

# Undergraduate Degrees

#### **BACHELOR OF APPLIED SCIENCE**

#### **BIOMEDICAL ENGINEERING**

**Ali, Faraz Ghayas** (Computing Option) \*†

Attias, Cedric (Sports Engineering Specialization) \*

#### Azmal, Sadia Salwa \*

**Brezner, Tomer** (Management Sciences Option) \*

Bui, Catherine (Computing Option) \*

Butt, Nicholas Eric Roland (Computing Option) \*

#### Chang, Teng Hung \*

**Chen, Ke Xin** (Neural Engineering Specialization – Computing Option) \*

Chennan Kunnath, Aarzoo \*

Christensen Anderson, Kirsten Leigh \*

**Clayton, Benjamin Hamilton** (Management Sciences Option, Computing Option) \*<sup>†</sup>

Deen, Hanaan Hussein Zainulab \*

**Deol, Simranjot Singh** (Neural Engineering Specialization – Computing Option) \*

Deveau, Julianna Augusta \*

Dhillon, Jodh Singh \*

Ehlers, Kirsten Elizabeth \*†

Fricke, Alexander Jeffrey \*†

Galaszewicz, Milena \*

Groves-Wyllie, Rebecca Margaret \*

Huggard, Benjamin Robert Gautreau (Computing Option) \*

Hughes, Vanessa Italia Anne \*

Janes, Elizabeth Laura \*†

Ji, Christina (Computing Option) \*†

Joseph, Shania Maria

Joshi, Akanksha (Computing Option) \*

Kaetheeswaran, Jathushan (Computing Option) \*

**Kheiri, Soha Osama** (Computing Option) \*†

Kothiyal, Naomi (Computing Option) \*†

Kurbis, Andrew Garrett Ziegler \*

Lam, Michael Sze Wai \*†

Langdon, Matthew Cole \*

Le, Cathy (Computing Option) \*

Lee, Matthew Kenyon (Computing Option) \*

Li, Yunqing \*

Lin, Elizabeth \*

Lin, Zhuoyun (Psychology Minor) \*

MacDougall, Camryn Hazel  $^{\ast}$ 

MacQuarrie, Kathryn Anderson \*† Maloney, Patrick Barry (Computing Option) \*†

Manawadu, Venuri Kithara (Software Engineering Option) \*†

Marotta, Teresa Diamante \*

McKibbon, Pierson James MacKenzie (Computing Option) \*

Nazarali, Zarifa \*

Ng Tang Fui, Leeam Siow Ying (Computing Option) \*

**Pandiaraju, Surya** (Neural Engineering Specialization – Computing Option) \*

Patel, Sonali Ashvin \*†

Pearce, Taylor \*

Pinzon-Corral, Karla Ennette \*

Pothier, Sydney Emma \*

**Quinto, John Rafael Ranieses** (Computing Option) \*

**Rahman, Marwan A** (Computing Option) \*

Richer, Megan Frances \*

Ryoo, Hee-Woon (Computing Option) \*

Saradhi, Srikar (Neural Engineering Specialization – Computing Option) \*

Sohani, Muiz Ali \*†

**Song, Jessy Jia** (Neural Engineering Specialization – Computing Option) \*

#### Sparkes, Sarah Mae \*†

Tanner, Breah Kathleen (Computing Option) \*

Taylor-Debeau, Ethan Patrick \*

**Terhljan, Naomi Skye** (Computing Option) \*

Tien, Abigail Rei-Ting (Management Sciences Option, Computing Option) \*

**Ting, Kayley Noelle** (Computing Option) \*

#### Varenbut, Nick $^{\ast}$

Veldhuis, Leah Nicole \*

**Vijayagopal, Harris** (Neural Engineering Specialization – Computing Option) \* Wang, Kendra Manting (Computing Option) \*

Wang, Leon (Computing Option) \*

Wang, Michael (Computing Option) \*

Watson, Michelle Alicia (Artificial Intelligence Option, Computing Option) \*

**Yan, Tom Liangze-Li** (Computing Option) \*

**Ye, Jennifer Ai** (Artificial Intelligence Option, Computing Option) \*

Yu, Yue chen (Computing Option) \*\*

#### CHEMICAL ENGINEERING

Adamson, Emily Karen Joan (Materials and Manufacturing Processes Specialization) \*

Afifi, Ali Hasan Majed (Materials and Manufacturing Processes Specialization) \*

**Ahmad, Faique Faraz** (Chemical Process Modelling, Optimization and Control Specialization) \*

Ahmed, Aryan (Materials and Manufacturing Processes Specialization) \*

**Ahmed, Muhammad Mahir** (Materials and Manufacturing Processes Specialization) \*

#### Akhand, Aamer \*

Al Katanani, Yazan Ismail Mohammad (Chemical Process Modelling, Optimization and Control Specialization)

Aldovino, Fatima Patricia Sevilla (Materials and Manufacturing Processes Specialization) \*

Alikiotis, Periklis Dimitrios (Materials and Manufacturing Processes Specialization) \*

#### Ariawan, Antonius Wiseley \*

**Asrani, Zain** (Energy and Environmental Systems and Processes Specialization) \*

**Bae, Sunho** (Materials and Manufacturing Processes Specialization) \*

#### Balaji, Arvind

**Baun, Matthew Alexander** (Physical Sciences Option) \*

**Brake, Jarrid Bishop** (Chemical Process Modelling, Optimization and Control Specialization – Management Sciences Option) \*

\* – With Distinction

#### Buskell, Jason Brady \*

**Byers, Jared Brian** (Energy and Environmental Systems and Processes Specialization – Economics Minor)

**Catly, Jazmine Joy** (Materials and Manufacturing Processes Specialization) \*

**Chan, Ching-Yuan** (Materials and Manufacturing Processes Specialization) \*

**Chaudhary, Rithik** (Energy and Environmental Systems and Processes Specialization)

**Chen, Yige** (Materials and Manufacturing Processes Specialization) \*<sup>†</sup>

#### Cho, Elliot Zachary \*

**Choi, Dong Wook** (Energy and Environmental Systems and Processes Specialization)

**Choi, Yun Woo** (Chemical Process Modelling, Optimization and Control Specialization) \*

**Chughtai, Arsalan Ali** (Chemical Process Modelling, Optimization and Control Specialization) \*

**Crow, Andrea Gayle** (Energy and Environmental Systems and Processes Specialization)

#### Cuba Coltsmann, Marianna Isabella \*

**Cui, Songbo** (Materials and Manufacturing Processes Specialization) \*

#### Dauz, Irene Joy \*

#### Dave, Param Ravin \*†

**d'Entremont, Sawyer** (Energy and Environmental Systems and Processes Specialization) \*<sup>†</sup>

#### Dhaliwal, Jasnain Kaur

**Diaz Contreras, Harumi Andrea** (Energy and Environmental Systems and Processes Specialization) \*

**Dima, Alexander Stephan** (Chemical Process Modelling, Optimization and Control Specialization – Entrepreneurship Option)

**Ding, Yuhan** (Chemical Process Modelling, Optimization and Control Specialization – Statistics Option) \*†

**Dudding, Casey Louise** (Materials and Manufacturing Processes Specialization) \*

Dutaud, Matthew Theodore Steven  $^{\ast\dagger}$ 

#### Feng, Alice Xue Ying \*†

Foell, Adrian Martin (Materials and Manufacturing Processes Specialization) \*

#### Garcia-Marroquin, Sebastian Adriel

(Chemical Process Modelling, Optimization and Control Specialization) \*

#### Gnanachandran, Aranjan \*

**Good, Cassidy Alyssa** (Materials and Manufacturing Processes Specialization) \*

Grech, Darby Jayne

Greuel, Peter Everest \*

Harrison, Craig Thomas \*

Hasan, Syeda Farisa (Materials and Manufacturing Processes Specialization) \*

Hufton, Gregory Stephen (Energy and Environmental Systems and Processes Specialization) \*

Hurd, Ryan William (Energy and Environmental Systems and Processes Specialization) \*

**Jayakody, Jason** (Management Sciences Option)

#### Jindal, Priyanka \*†

Joyce, Idamae Elizabeth (Materials and Manufacturing Processes Specialization) \*

Kanade, Siddharth Dipak (Chemical Process Modelling, Optimization and Control Specialization – Management Sciences Option)

Kang, Dong Hyun (Materials and Manufacturing Processes Specialization) \*

Kapadia, Aaliyan Afroz \*

**Kaur, Amrita** (Materials and Manufacturing Processes Specialization) \*

#### Khan, Irfan Naved

**Khan, Muhammad Rahim** (Energy and Environmental Systems and Processes Specialization) \*

#### Kim, Daniel \*

**Kim, Hyunseo** (Materials and Manufacturing Processes Specialization) \*

**Kim, Soobin** (Chemical Process Modelling, Optimization and Control Specialization) \*

**Kiszka, Michael Robert** (Chemical Process Modelling, Optimization and Control Specialization, Materials and Manufacturing Processes Specialization – Management Sciences Option) \*

**Li, Chenxin** (Materials and Manufacturing Processes Specialization) \*

**Liang, Jacky** (Energy and Environmental Systems and Processes Specialization) \*

#### Liu, Jingtian

Liu, Yiran (Chemical Process Modelling, Optimization and Control Specialization – Management Sciences Option) \*

**Lozano Castillo, Mariana** (Chemical Process Modelling, Optimization and Control Specialization) \*

#### Luoma, Aleksi Aaron \*

**Luu, Victor** (Materials and Manufacturing Processes Specialization) \*

Mackay, Elizabeth Anne (Materials and Manufacturing Processes Specialization) \*

Magro, Kendall Lynn (Energy and Environmental Systems and Processes Specialization) \*

Malakooti, Cyrus Amir (Materials and Manufacturing Processes Specialization) \*

McNeil, Shannon Katherine Pearsall (Chemical Process Modelling, Optimization and Control Specialization) \*

Melanson, Joshua Robbie Noël (Chemical Process Modelling, Optimization and Control Specialization – Statistics Option, Management Sciences Option) \*

#### Muthalathu, Rithu \*

**Nguyen-Dang, Angeline Hoang-An** (Materials and Manufacturing Processes Specialization) \*

**Nia, Tina** (Materials and Manufacturing Processes Specialization) \*

Nicholson, Alexa Catherine (Materials and Manufacturing Processes Specialization) \*

**Ohaka, Tobechukwu Joshua** (Materials and Manufacturing Processes Specialization) \*

**O'Hara, Guenevere Glory** (Materials and Manufacturing Processes Specialization) \*†

**Ohl, Robert** (Materials and Manufacturing Processes Specialization) \*

**Okoronkwo, Tarela Chinyere** (Energy and Environmental Systems and Processes Specialization) \*<sup>†</sup>

Olatunbosun, Olamide Chukwudubem (Energy and Environmental Systems and Processes Specialization – Management Sciences Option) \*†

**Ou, Loria** (Chemical Process Modelling, Optimization and Control Specialization – Management Sciences Option) \*

- With Distinction
- † Dean's Honours List

**Pandey, Shraddha** (Energy and Environmental Systems and Processes Specialization) \*<sup>†</sup>

**Patel, Tirth Manoj** (Energy and Environmental Systems and Processes Specialization) \*

**Pun, Jason Lok Tin** (Chemical Process Modelling, Optimization and Control Specialization, Materials and Manufacturing Processes Specialization – Management Sciences Option) \*<sup>†</sup>

**Raj, Shiani** (Materials and Manufacturing Processes Specialization) \*<sup>†</sup>

**Remes-Gavin, Kael** (Energy and Environmental Systems and Processes Specialization) \*

**Rizvi, Syed Haider** (Energy and Environmental Systems and Processes Specialization) \*

#### Romagnoli, Luca \*

**Rowntree, Faith Marie** (Energy and Environmental Systems and Processes Specialization) \*

Rutyna, Amber Marie (Materials and Manufacturing Processes Specialization) \*

Salvatore, Alexa Margaret (Materials and Manufacturing Processes Specialization) \*†

**Sharma, Sayjal** (Energy and Environmental Systems and Processes Specialization) \*<sup>†</sup>

**Skidmore, Jeffrey Evan** (Energy and Environmental Systems and Processes Specialization)

Smyth, Emily Helen (Energy and Environmental Systems and Processes Specialization – Management Sciences Option) \*

**Staines, Jakob Christopher Duarte** (Energy and Environmental Systems and Processes Specialization) \*

Sultana, Nusayba (Materials and Manufacturing Processes Specialization) \*

**Sun, Duo** (Materials and Manufacturing Processes Specialization – Life Sciences Option) \*<sup>†</sup>

Swaminathan, Adithya (Chemical Process Modelling, Optimization and Control Specialization) \*

**Thapa, Bishal** (Materials and Manufacturing Processes Specialization) \*

Thevasagayam, Eveline (Management Sciences Option) \*†

Tinline, Derian Alan \*

**Tong, Alice** (Materials and Manufacturing Processes Specialization – Management Sciences Option) \*

Tong, Jason Jiacheng (Materials and Manufacturing Processes Specialization – Management Sciences Option) \*

Tran, Chris (Chemical Process Modelling, Optimization and Control Specialization, Materials and Manufacturing Processes Specialization – Management Sciences Option) \*

**Tse, Alexander Tin Yin** (Energy and Environmental Systems and Processes Specialization)

Varghese, Abin Anil (Materials and Manufacturing Processes Specialization) \*

Villa Lema, Fabian Ismael (Chemical Process Modelling, Optimization and Control Specialization) \*

Villeneuve, Alexandra Louise (Materials and Manufacturing Processes Specialization) \*

**Vinzon, Danielle Joy Lamasan** (Materials and Manufacturing Processes Specialization) \*

Wang, Hao (Chemical Process Modelling, Optimization and Control Specialization) \*†

Wortman, Joseph (Energy and Environmental Systems and Processes Specialization – Management Sciences Option) \*

#### Yang, Chelsea

#### Yang, Xinge \*†

Yau, Jeng Haw (Energy and Environmental Systems and Processes Specialization – Environmental Engineering Option) \*

**Ye, Zhen** (Chemical Process Modelling, Optimization and Control Specialization) \*

**Zhang, Hao Yu** (Materials and Manufacturing Processes Specialization) \*

Zhu, Jin Yun \*†

#### NANOTECHNOLOGY ENGINEERING

Alidina, Alina \*

Allan, Raegan Gilmour \*† Bakbak, Haneen (Computing Option) \* Bernstein, Hannah Rachel \*

Bobtchev, George Simeonov \*

Brodie, Pritika \*

Cancellara, Cecilia Natalina \*

Chausse, Jacob \*

**Chen, Elijah Yilang** (Computing Option) \*

Chen, Houfu \*

Choi, Robert Ellis

**Chong, Kellie** (Life Sciences Option, Computing Option) \*

**Con, Austin Jarrod** (Computing Option) \*<sup>†</sup>

Davis, Caleb Shepherd \*†

Dawson, Megan Mei \*†

Dean, Cameron Lucas \*†

**Deng, Cynthia** (Physical Sciences Option) \*

Dimeck, Terese Magdalena \*

Fakhouri, Adnan \*

Farfan, Paul Joshua

Fernandes, Guillaume \*

Firmani, Christopher Tyler (Computing Option) \*

**Gao, William Zechao** (Computing Option)

**Gharabaghi, Nick Nolan** (Physical Sciences Option) \*†

Graham, Scott David Moran \*

Grovu, Tristan Bradley \*

Habashy, Karim \*

Hafenberg, Patrick Andreas \*

Hanneson, Joshua Scott \*

Harabin, Andrew Tadeusz \*

Hawkins, Connor Phillip \*

Hawkins, Liam Gregory \*

Henriques, Samuel Franco \*

Ho, Victoria Xin-Yue Chantal (Management Sciences Option) \*

Hsiao, Jeriann Lauryn \*†

Hu, Lihe (Entrepreneurship Option) Hung, Minren (Computing Option) \* Jiao, Yixuan \*†

Klassen, Brandon William \*

Kunihiro, Joshua Ken Ito \*

Kurseja, Pavitra Deepak \*

Lee, Brian Byungjun \*

Leon, Alyssa Mariana \*

Levinski, Nicholas Anthony \*

Maurice, Jacob Thomas \*†

**McCarthy, Christopher Ouyang** (Computing Option) \*

Moin, Muneeb Bin (Computing Option) Murphy, Claire Theresa

Naidoo-Edwardson, Kiran \*

\* - With Distinction

Newport, Matthew Otis \*

Park, Paul Jonghyuk \*

Patel, Tirth

Pautler, Justin David \*

Pearson, Kate Elizabeth \*†

Piercey, Ethan Kristopher \*

Potnis, Setu (Computing Option) \*

Qudsi, Yazan Hani Mohammad \*

Rukavina-Nolsoe, Anna Grace  $^{*}$ 

Saini, Agosh Singh \*

Scaini, Shakira Isaacs \*

**Shan, Saad Shafqat** (Management Sciences Option) \*

Shaw, Benjamin David

**Shen, Paul** (Artificial Intelligence Option, Entrepreneurship Option) \*

Shi, Mia (Mathematics Minor) \*

Siddiqui, Mohammad Musaab (Computing Option) \*

Singh, Angad \*

Soni, Yashveer Viral \*

Spinazze, Michael Ross \*†

Syed, Mustapha

Tang, Teresa Siyun \*

Thompson, Etido Emmanuel \*†

Torrance, Skye Kristen \*

Turkiewicz, Luca \*†

**Vandame, Océane** (Computing Option) \*

Verma, Priyanka \*

Wu, Dihan \*

Xu, Alexander Haoyan  $^{\ast}$ 

Zala, Brijrajsinh Dharmendrasinh \*† Zhang, Zijian (Computing Option) \* Zhen, William (Computing Option) \* Zheng, Joyce Yiran \*†

SYSTEMS DESIGN ENGINEERING Almawi, Ahmad \*

Ang, Cooper Ka-Ming \*

Ayyanan, Sasipriya

Bhatt, Ishaan

Cao, Jiaru \*

**Carr-Pries, James Thomas** (Cognitive Science Minor) \*†

**Chaudhry, Ahmad Tahir** (Computing Option) \*

Chen, Jennifer (Computing Option) \*\*

Cheng, Bernadette Ho-Sum (Computing Option) \*

**Chiang, Jianying** (Management Sciences Option, Computing Option) **Cho, Hyunjun Cho, Yongwon** (Management Sciences Option)

Chu, Carol Ran \*

Chudasama, Abhaysinh Dharmendrasinh

Dales, Alexander Charles Kyte \* Debebe, Yonael Miheret (Management Sciences Option)

Dey, Aunosua \*

Doleweerd, Kaitlyn Mary Louise Drak Sibai, Burhan

Dugan, Jeffrey Terrence Go, Yzabelle To (Computing Option) \*

Gurnsey, Flynn James Barber \*†

He, Jing Yi \*†

He, Tian Ying Ho, Jonathan Benedict (Management Sciences Option – Economics Minor)

Howard, Phoebe Elizabeth \*

**Inglis, Katherine** (Management Sciences Option) \*†

Islam, Seeam Nizamul (Management Sciences Option) \*

Kalia, Chetan \*

Khalid, Aaiza

**Khew, Paulina Grace** (Software Engineering Option)

**Kim, Daniel Hayoung** (Computing Option) \*†

Kim, Lynn \*

Landy, Alexandra Mackenzie (Society, Technology and Values Option, Management Sciences Option) \*†

Lee, Carmen

Li, Carman \*

Li, Sara Lok-Na \*

Liu, Yuxuan (Computing Option) \*

Ly, Erin \*

Malton, Margaret Anne

Matulis, Lucina Anna \* McGinnis, Cindy Lee

McPhee, Mary Rennie Shaw \*

Mehrotra, Aadit Sandeep (Management Sciences Option)

Monga, Rohan

Morenos, Seth Villaruz

Muir, Jess Douglas \*

Nagri, Hussein Zulfikar (Management Sciences Option, Computing Option) \* **Ng, Jeffrey Chiu-Hang** (Computing Option) \*<sup>†</sup>

**Nguyen, Kha Hoang** (Management Sciences Option, Computing Option)

Nguyen, Lena \*

Oh, Nathan Michael Olive Jr, David Matacot Park, Joon Young \* Patel, Kiera Neena \* Pena, Ainley Abigail \* Pittman, Emily Faith \*† Qiao, Justin Cheng (Computing Option) \* Rajwani, Aliya \* Ramamani, Sweta \* Ramezani, Hooman Rao, Surin Tejas \* Rehders, Emma Katherine Rivers, Hannah Elizabeth (Music Minor) Robens-Paradise, Samuel (Computing Option) \* Rooke, Clayton James \*† Ruegg, Matthew James Semin, Roman Seto, Vanessa \* Seu, Logan (Computing Option) \* Shah, Amay Keval Shah, Dhrumil Ketul Sharma, Neil (Management Sciences Option) Sun, Yizheng Truong, Timmy Tsai, Carelynn Jialin \* Van Hemmen, Stephen Joseph \*† Wang, Emily \* Wang, Jenna \* Wang, Zi Yu \* White, Arden Ruby Milsom \* Wiese, Haydn John \* Wilkinson, Joshua Jeffrey \* Williamson, James Quinn \* Wu, Yi Xuan (Computing Option) Xie, Elodie \*† Xue, Youming \* Zerbs. Jakob Alexander \* Zerbs, Thomas Gabriel \*

Zhao, Andrew Chen Zhang Zhu, Christopher Yuanlong

Zou, Xinyi (Cognitive Science Minor) \*†

\* – With Distinction

# CERTIFICATE IN CO-OPERATIVE EDUCATION IN RESEARCH

Bernstein, Hannah Rachel Cancellara, Cecilia Natalina Chen, Ke Xin Jiao, Yixuan Manawadu, Venuri Kithara O'Hara, Guenevere Glory Shen, Paul

### CERTIFICATE IN GLOBAL EXPERIENCE

Shen, Paul

\* - With Distinction
† - Dean's Honours List



# SATURDAY<br/> EVENING<br/> CERENING<br/> CER

Degrees and diplomas from: UNIVERSITY OF WATERLOO FACULTY OF ENGINEERING

# Graduate Degrees

#### **DOCTOR OF PHILOSOPHY**

Akbarpour Safsari, Shaghayegh

(Civil Engineering - Water) "Using Machine Learning to Understand the Hydrologic Impacts of Permafrost Thaw-Driven Land Cover Change"

**Almutairi, Haya** (Civil Engineering) "Investigating Solutions for Self-Healing and Crack Mitigation of Flexible Pavement Materials"

Aurilio, Roberto (Civil Engineering) "Investigating and Developing Fatigue-Healing Characterization of Asphalt Materials"

Awe, Olukayode (Civil Engineering) "Cured-in-Place Pipe Pressure Liner Experimental Study"

## Barbi, Paula Sutherland Rolim

(Civil Engineering) "An Enhanced Mechanistic Analysis Framework for Designing Resilient Airfield Pavements"

**Chehrazi, Ali** (Civil Engineering) "Testing and Fretting Fatigue Analysis of Bridge Stay Cable Wires at Saddle Supports"

**Chopra, Shivangi** (Management Sciences)

"Gender Differences in Engineering: A Data-Driven Study"

#### Demircan Ozelcaglayan, Ezgi

(Civil Engineering - Water) "Evaluation of a Novel Beta-Cyclodextrin Functionalized Nano Adsorbent for Removal of Pharmaceuticals"

**Kabir, Tamanna** (Civil Engineering) "Development of Porous Rubber Pavement for the Canadian Climate"

# **Kafi Farashah, Mehran** (Civil Engineering)

"Development of Sustainable Asphalt Mix Solution for Use in Approach Intersection Pavements in Southern Ontario"

Liao, Hui (Civil Engineering) "Optimizing the Performance of Asphalt Mixes With High Reclaimed Asphalt Pavement Content Using Rejuvenators"

**Oyeyi, Abimbola Grace** (Civil Engineering) "Lightweight Cellular Concrete

as Flexible Pavement Subbase Material: Field Performance and Sustainability Study" **Qabur, Ali Hussain I** (Civil Engineering) "Optimization of the Use of Post-Industrial Recycled Multilayer Plastic Packaging (MPP) as Asphalt Modifier"

**Taheri, Mahkameh** (Civil Engineering – Water)

"Upscaling Fill-and-Spill Hydrologic Processes"

Terry, Jacob Ross (Civil Engineering) "Analyzing the Competitiveness of Transit-Integrated Ridesourcing Systems"

Wang, Rui (Civil Engineering) "Direct Method of Generating Floor Response Spectra for Structures Under Earthquake Excitations at Multiple Supports"

Younes, Taha (Civil Engineering) "The Impact of Portland Cement on the Performance of Cold In-Place Recycled Pavement"

Zarei, Mohammad (Civil Engineering) "Improving Predictive Models for Road Safety Screening: Cost-Benefit Data Analytics and Deep Generative Models"

**Zhang, Linbo** (Civil Engineering) "Bracing Requirements for Multi-Column Systems with Nonuniform Stiffness and Semi-Rigid Connections"

**Zhao, Dandi** (Civil Engineering) "Development and Evaluation of Testing Protocols for Fatigue Damage and Crack-Healing of Bituminous Mixtures"

#### **MASTER OF APPLIED SCIENCE**

**Anwar, Ahmed** (Management Sciences)

**Carroll-Woolery, Lannois** (Management Sciences)

Chu, Kington (Civil Engineering)

**Kim, Tori Yeonjin** (Civil Engineering and Planning)

**Lin, Simon Guan Min** (Civil Engineering - Water)

McLaren, William Charles (Civil Engineering - Water)

**Mohseni Kiasari, Peyman** (Management Sciences)

**Quosai, Peter Thomas** (Civil Engineering)

**Raeisi, Shamim** (Management Sciences)

Rafiee Pour Alavi Alavijeh, Ali (Management Sciences)

**Rendel, Rudi Alexander** (Civil Engineering)

**Taylor, Alannah Rebeckah** (Civil Engineering - Water)

**Vakili Tahami, Amir** (Management Sciences)

Yang, Shelley Hui Juan (Civil Engineering)

#### **MASTER OF ARCHITECTURE**

Alnabelseya, Safaa Chuang, Vincent

D'Sa, Bhadra Dhisana

Dunn, Angus Emery David

**Gupta, Maulshree** (Co-operative Program)

Ip, Pui Yue Iris

Jabbarimoghaddam, Tala (Co-operative Program)

Joseph, Ashwati Teresa (Co-operative Program)

Kiernan, Giulia Paige

Lee, Bogyeong

Lee, Salina Victoria Leung, Audrey

Li, Zhen

Li, Zhi

Lin, Weeney

McNeil, Alison

Mema. Iva

Ogbu, Chinenye Michelle

Paranthahan, Mayuri

Patange, Poorna S (Water)

Puersten, Nicholas Michael

Reinhart, Madeleine

Saad, Esraa Mohamed Mahmoud (Co-operative Program)

Sermol, Alexandra Shehab, Hania Assem (Co-operative

Program) Trivett, Martha Varshosaz, Parastoo (Co-operative Program)

Wang, Shiying Wang, Yidan Yeh, Nancy Young, Stephanie

#### **MASTER OF ENGINEERING**

Arbuckle, Spencer David (Civil Engineering)

Attaluri, Ramvinay Durgaprasad (Civil Engineering)

Burchell, Gregory Robert (Civil Engineering)

Çako, Elisabeta (Civil Engineering)

**Gade, Stephen James** (Civil Engineering)

**Gindodia, Yashraj Sanjay** (Civil Engineering)

KarimianTaheri, Arman (Civil Engineering)

**Modi, Siddhant Dipak** (Civil Engineering)

Wakhale, Kaustubh Jayant (Civil Engineering)

#### MASTER OF MANAGEMENT SCIENCES

Saurav (Co-operative Program)

Acikel, Yildirim

Adil, Arish (Co-operative Program)

Ajadi, Oluwapelumi Emmanuella

Akinlemibola, Oloruntoba Joseph (Co-operative Program)

Bai, Jiahui (Co-operative Program)

**Chhabra, Pavneet Singh** (Co-operative Program)

**Christopher, Allan Emmanuel** (Co-operative Program)

Dalal, Sambhav

Dave, Meet Hemang

Elkhatib, Abdel Rahman

Fox, Nicole Elizabeth

**Ganeshan, Naina** (Co-operative Program)

**Gaur, Pranjal** (Co-operative Program)

**Ghorbani Siyavashani, Elnaz** (Co-operative Program)

**González Arévalo, Tania Lorena** (Co-operative Program)

**Gupta, Avantika** (Co-operative Program)

**Hegde, Ashik** (Co-operative Program)

Hinds, Tiffany

Javaid, Roshan (Co-operative Program)

Jayakumar, Trupti (Co-operative Program)

Jiang, Lei (Co-operative Program)

Kakade, Rachel Gajanan (Co-operative Program) Kardash, Jeremy Samuel (Co-operative Program)

Kaur, Damanpreet

Koshe, Archish (Co-operative Program)

Liao, Xin Yu

Liu, Xingyu (Co-operative Program)

Liu, Xiyue (Co-operative Program)

Lyu, Weiyu (Co-operative Program)

Mehta, Mukesh Chautharam (Co-operative Program)

Misra, Trinayani Kishan

Mittal, Shubham (Co-operative Program)

**Nadeem, Taha** (Co-operative Program)

**Nagpal, Devansh** (Co-operative Program)

Nagwekar, Ronit Shashank (Co-operative Program)

Padaki, Pradyumna Bhimrao (Co-operative Program)

**Pandey, Vibhum** (Co-operative Program)

Patel, Dharmik Ashishbhai

Patel, Dhruvkumar Dahyabhai

**Patel, Tithi Hitesh** (Co-operative Program)

Pitek, Kaitlyn Jean

**Prakash, Meghana** (Co-operative Program)

Rajalingam, Vishnu

Sawant, Omkar (Co-operative Program)

**Saxena, Shishir** (Co-operative Program)

**Sehgal, Mohit** (Co-operative Program)

**Sehgal, Rakshak** (Co-operative Program)

Shah, Advait Rajeshkumar

**Sharma, Ankit** (Co-operative Program)

**Shetty, Tanya** (Co-operative Program)

**Singh, Praveer** (Co-operative Program)

**Singh, Raju Rhicha** (Co-operative Program)

Singla, Rohan

**Sondhi, Arushi** (Co-operative Program)

Soni, Kartik (Co-operative Program)

Thyagarajan, Shobana Shree (Co-operative Program)

Tovar Hidalgo, Wilfredo Alejandro

**Vasisht, Lakshya Raj** (Co-operative Program)

Vazdekis, Samer

**Vemuri, Vineesh** (Co-operative Program)

Wang, Lixin (Co-operative Program) WU, XINYUAN

Yang, Yiwen (Co-operative Program) Ye. Tiantian

Yu, Xueyan (Co-operative Program)

**Zhang, Qiwei** (Co-operative Program)

**ZHENG, YICHEN** (Co-operative Program)

#### **GRADUATE DIPLOMA**

Dave, Meet Hemang (Data Analytics) Rajalingam, Vishnu (Data Analytics) Shah, Advait Rajeshkumar (Data Analytics)

#### **GRADUATE CERTIFICATE**

Jamal, Sondus (University Teaching) Pandey, Upasana (University Teaching)

# Undergraduate Degrees

#### **BACHELOR OF APPLIED SCIENCE**

#### ARCHITECTURAL ENGINEERING

Adebiyi, Adebola Opeoluwa (Building Systems Specialization)

**Akhavan Tabassi, Rose** (Building Structures Specialization) \*

Angkiriwang, Patrick Andersen (Building Systems Specialization) \*

**Arruda, Kaitlyn Marie** (Building Structures Specialization, Building Systems Specialization)

**Bigelow, Drew Thomas Walter** (Building Systems Specialization) \*

**Cao, Jocelyn** (Building Systems Specialization)

**Chan, Brian Edward** (Building Structures Specialization) \*<sup>†</sup>

**Chan, Megan** (Building Systems Specialization) \*

#### Chen, Dylan

**Chen, Herry** (Building Structures Specialization) \*<sup>†</sup>

**Choi, Youngjin** (Building Systems Specialization) \*

**Chow, Jonathan Eugene** (Building Systems Specialization) \*<sup>†</sup>

**Clement, Vincent Roy** (Building Systems Specialization)

**Coons, Susannah Julia Anne** (Building Systems Specialization) \*

**Dabrowski, Jan Jakub** (Building Structures Specialization)

**Daviau, Maxime Adrien** (Building Systems Specialization) \*†

**DeLorenzis, Maria Luisa** (Building Systems Specialization)

**Dowling, Marley Kathleen Loft** (Building Structures Specialization, Building Systems Specialization) \*

**Elmaghrabi, Omar Khaled Mokhtar** (Building Systems Specialization – Management Sciences Option) \*

#### Feng, Zi Rui

Fleming, Julia Marita (Building Structures Specialization) \*†

**Frise, Charles Taylor** (Building Systems Specialization)

**Furtado-Herzig, Sarah M Rose** (Building Systems Specialization)

**Giang, Amanda Kelley** (Building Systems Specialization) \*

**Gomes, Nicolas Mendes** (Building Structures Specialization, Building Systems Specialization) \*

**Grignano, Daniel Vincent** (Building Structures Specialization)

**Gu, Fangming** (Building Systems Specialization) \*

**Hioe, Michael Alexander** (Building Systems Specialization)

Howie, Kaitlyn Joanna (Building Structures Specialization)

**Hweija, Sham** (Building Structures Specialization)

Jiang, Harry (Building Structures Specialization, Building Systems Specialization) \*†

**Kam, Serena Puiying** (Building Systems Specialization) \*†

Kassab Hassan, Ibaa (Building Structures Specialization, Building Systems Specialization) \*

#### Kim, Jongwon

**Kim, Lucas** (Building Systems Specialization)

Kovacs, Tristan Christopher (Building Systems Specialization) \*†

LeBrun, Mackenzie Noelle \*

**Leung, Cheuk Fung** (Building Systems Specialization) \*

**Li, Augusta** (Building Systems Specialization) \*

**Liao, Jessica** (Building Structures Specialization) \*<sup>†</sup>

Markwart, Amy Catherine (Building Structures Specialization) \*

Martin, Jillian Rose (Building Structures Specialization) \*

Mathanamohan, Sharuja (Building Structures Specialization) \*

**Mei, Yutao** (Building Systems Specialization) \*

**Nathaniel, Joyceline Anne** (Building Systems Specialization)

**Neals, Thomas James** (Building Systems Specialization) \*

Ngilinga De Carvalho, Mapendo Pierre \*

**Oliver, Lacey Samantha** (Building Structures Specialization)

Paquette, Ethan Michael \* Patel, Drasti **Poon, Joanna** (Building Systems Specialization)

**Purcell, Robert Gideon James** (Building Structures Specialization)

**Quattrociocchi, Alexa Julia** (Building Structures Specialization) \*<sup>†</sup>

**Rabinovich, Sean** (Building Systems Specialization) \*

Ramesh, Kanishk (Building Structures Specialization)

Rana, Dilroz (Building Structures Specialization, Building Systems Specialization) \*

Rankovic, Stefan Marko \*

**Ryan, Ayden Grace** (Building Structures Specialization) \*

Sang, Xiaoqi \*

Saunders-Henning, Shein Rose (Building Systems Specialization)

**Sebastian, Cathy** (Building Systems Specialization)

**Siciliano, Serena Louise** (Building Systems Specialization) \*

**Siddiqui, Jawaad Khawar** (Building Systems Specialization)

#### Stakheiko, Maria \*

**Su, Jason** (Building Structures Specialization, Building Systems Specialization) \*<sup>†</sup>

**Wu, Xiao Rui** (Building Systems Specialization) \*

**Xu, Ya Ting** (Building Systems Specialization)

**Xue, Yan Xin** (Building Systems Specialization) \*

**Zafar, Balaaj** (Building Structures Specialization, Building Systems Specialization)

**Zhu, Carrie** (Building Systems Specialization)

#### CIVIL ENGINEERING

**Abdelmessih, Ezzat** (Structural Specialization) \*†

**Aggarwal, Madhvi** (Structural Specialization) \*<sup>†</sup>

**Ahmed, Aasil** (Structural Specialization) \*

Akpata, Emmanuel Omorose (Structural Specialization)

Alexander, Jacob Francis (Structural Specialization)

\* – With Distinction

Alhassan, Sarra Hassan (Management Sciences Option) \*†

Ali, Azaan (Structural Specialization) \*

Alimi, Eklil (Geotechnical Specialization, Structural Specialization)

**Alvarez, Riber Elenilson** (Structural Specialization) \*

#### Amero, Ethan Timothy \*

Anandappa, Tiana Nicole (Geotechnical Specialization)

Balles, Nicole Antoinette (Structural Specialization – Management Sciences Option) \*

**Bradley, Martin David** (Transportation Specialization) \*†

**Brzyski, Kamil Daniel** (Transportation Specialization) \*

**Busca, Benjamin Robert** (Structural Specialization) \*

**Camarda, Tyler Allan** (Transportation Specialization) \*

**Campos, Ana Lia Ruiz** (Water Resources Specialization) \*

**Chan, Louisa Hau Yu** (Structural Specialization) \*

**Charky, Thomas George Edward** (Structural Specialization) \*

**Chaudhry, Noah Ali** (Structural Specialization) \*<sup>†</sup>

Chen, Harry Haosong (Transportation Specialization) \*

Chen, Shaowen \*

**Chen, Xin** (Transportation Specialization) \*

**Cheng, Dayi** (Transportation Specialization)

**Chingadu, Yovin Heylan** (Structural Specialization) \*

**Cimino, Anthony Ryan** (Structural Specialization) \*

**Coelho Martins, João Pedro** (Structural Specialization) \*

Collins, Troy Alexander (Geotechnical Specialization) \*

**Corrado Lopez, Jesus Antonio** (Structural Specialization)

**Cunanan, Gilbert** (Structural Specialization) \*

Davis, Kyle Eric Robinson \*

**Deng, Jessica** (Transportation Specialization) \*

**Dyce, Russel Frank** (Structural Specialization) \*

Ermers, Noah David (Structural Specialization) \*

**Fang, Lefu** (Transportation Specialization) \*†

**Ferazzutti, Anthony** (Transportation Specialization) \*

**Frankovich, Luka Vincent** (Structural Specialization)

**Fu, Yifang** (Transportation Specialization) \*<sup>†</sup>

**Garcha, Chirjivan Singh** (Structural Specialization) \*

**Ghobrial, Joshua** (Structural Specialization) \*

**Ghotra, Manpreet Singh** (Structural Specialization) \*

**Golebiowski, Claudia** (Transportation Specialization) \*

**Gordon, Andrew MacKay** (Structural Specialization) \*†

Gou, Zhi Peng \* Grewal, Manraj Singh (Structural Specialization) \*†

**Guirguis, David Ehab** (Structural Specialization)

Guirguis, Keristin Hossam

Hakimi, Soleeman (Structural Specialization)

Han, Yu Chen (Structural Specialization – Management Sciences Option) \*

Hannah, Kelly Philomena (Structural Specialization) \*

Harper, George William Scott (Structural Specialization)

Hassan, Mazen \*

#### Hu, Xiaoge \*†

Illman, Walter Ricardo (Structural Specialization, Transportation Specialization) \*

Jamieson, Nathan David (Structural Specialization – Management Sciences Option) \*

Janzen, Ryan Peter (Structural Specialization) \*

Jeyakumar, Jonathan Kanna (Structural Specialization/ Management Sciences Option)

Khalid Khan, Labeeb (Structural Specialization) \*

**Khan, Aiman** (Transportation Specialization) \*

**Khosa, Jaskaran Singh** (Structural Specialization) \*

**Kim, Brian Hojung** (Transportation Specialization)

Klassen, Benjamin Luke (Structural Specialization) \*

**Kool, Jordan Willem Alan** (Transportation Specialization)

Kurtz, Stefanie Anne (Geotechnical Specialization, Structural Specialization) \*

**Lee, Jeseung** (Structural Specialization)

**Li, Herman** (Structural Specialization) \*†

**Liu, Abbly Jia Hui** (Transportation Specialization) \*

**Liu, Phillip YiMei** (Transportation Specialization)

**Ly, Jacob** (Transportation Specialization) \*<sup>†</sup>

MacIsaac-Sun, Madeleine Frances (Water Resources Specialization) \*

McParland, Matthew Peter (Geotechnical Specialization, Transportation Specialization) \*†

**Miranda, John** (Structural Specialization) \*

**Mizzen, Connor Matthew** (Water Resources Specialization) \*

**Moondi, Harkiran Kaur** (Structural Specialization) \*<sup>†</sup>

Morrison, Dominique Noella Margaret (Water Resources Specialization) \*†

**Mortillaro, Luca** (Structural Specialization – Management Sciences Option) \*

Muhammad, Shaheer (Geotechnical Specialization & Structural Specialization) \*

**Muiruri, Kamande** (Structural Specialization) \*

**Mujadidi, Ahmad Tariq** (Structural Specialization) \*

Mullally, Farid James (Transportation Specialization) \*†

**Ngo, Kelly** (Transportation Specialization) \*

**Nicol, Owen Patrick** (Transportation Specialization) \*

**Nim, Somi** (Transportation Specialization) \*

**Pandya, Devarshi Jayeshkumar** (Structural Specialization)

**Park, Se Joon** (Transportation Specialization)

**Peng, Yifei** (Structural Specialization) \*<sup>†</sup>

**Podgorniak, John Paul** (Structural Specialization)

**Postma, Jaden Noah** (Structural Specialization)

- With Distinction
- † Dean's Honours List

Prinsen, Levi Andrew (Water Resources Specialization) \*

Qin, Jiayu (Structural Specialization) \*

Rust. Rebecca Anna \*

Rywak, Adam (Transportation Specialization)

Said Hassan, Sahra (Transportation Specialization)

#### Sakthivel, Sarojan

Saxena, Rohan (Structural Specialization)

Shah, Kavin (Structural Specialization) \*

Shin, Yoonhwan (Transportation Specialization) \*

Simone, Adrian Marco Paul (Structural Specialization)

Skantharajah, Shawn Vishnu (Geotechnical Specialization, Structural Specialization) \*

Smadi, Hamzah Mamoon (Geotechnical Specialization, Structural Specialization) \*

So, Benny (Structural Specialization) \*

Sy, Liam Jacob (Structural Specialization) \*

Tan, Denis Xi (Water Resources Specialization) \*\*

Taylor, Jack Ian (Structural Specialization - Management Sciences Option) \*

Thampaiyah. Ahiesh (Structural Specialization)

Tran, Michael Nicholas (Structural Specialization, Transportation Specialization - Management Sciences Option) \*

#### Truman, Ethan Thomas \*

Wang, Emeline Yi (Water Resources Specialization) \*\*

Waseem, Mahnoor (Structural Specialization)

Westrik, James Andrew \*

Winger, Joshua Avery (Structural Specialization) \*\*

Wong, Brandon \*†

Wong, Jason Tsz Chun (Structural Specialization)

Wong, Yuk Ying (Water Resources Specialization) \*

Yokhana, Catherine L (Transportation Specialization) \*

Yuen, Shalom (Structural Specialization)

Zhang, Michelle (Structural Specialization - Management Sciences Option) \*

Zhao, Ge (Structural Specialization) \*

Zhou, Chenghao (Structural Specialization) \*\*

#### ENVIRONMENTAL ENGINEERING

Aspin, Joshua Dennis Norman

Calder, Liam \*

Chan, Nicolas Hiu Nam (Pollution Treatment and Control Specialization)

Chen, Yingqi (Water Resources Option - Earth Sciences Minor) \*

#### Chiu, Wesley \*

#### Choudhary, Faizan Ahmad

Chun, DongJae (Water Resources Option) \*

Corriveau, Riley Adam \*

Cota, Chad Michael (Hydrology Specialization) \*\*

#### Das, Shubhayu \*

Dunbar, Paige Elizabeth (Pollution Treatment and Control Specialization) \*

#### Fierastrau, Vlad Andrei \*

Fraser Semenoff, Maria (Hydrology Specialization, Pollution Treatment and Control Specialization) \*

#### Gao, Xin \*

Grenapin, Cedric \*

Grover, Lakshaya (Energy Specialization) \*

#### Huang, Rui Han

Imtiaz, Muhammad Anzar (Energy Specialization) \*\*

Jamal, Kiran (Pollution Treatment and Control Specialization)

#### Keyes-Krysakowski, Rudolf Gustaw (Hydrology Specialization) \*

Khan, Ahmad Abdullah

#### Kichiy, Emma Nicole \*

Kim, Daniel (Hydrology Specialization, Pollution Treatment and Control Specialization) \*

Kim, Jung Hyun (Pollution Treatment

and Control Specialization) \* Kooy, Jacob Anthony Tate (Hydrology Specialization) \*\*

Kuruppu, Anjali Purnima (Hydrology Specialization) \*

Laliberte, Rayden Grace (Pollution Treatment and Control Specialization) \*

#### Leoni, David Gabriel

Leung, Gareth Hon-Yiu (Energy Specialization) \*

Li, Yiming \*

Linehan, Matthew John \*†

Ma, William Graham \*

Macdonald, Kyle Fraser \*

Messenger-Lehmann, Rachael Trillium (Hydrology Specialization) \*

Montgomery, Jane Cecilia (Energy Specialization) \*

Myles, Madeleine (Energy Specialization, Pollution Treatment and Control Specialization) \*\*

Nasir, Malaica (Hydrology Specialization, Pollution Treatment and Control Specialization) \*

Park, Jung Jun (Water Resources Option) \*

Paul, Sarah (Hydrology Specialization, Pollution Treatment and Control Specialization) \*

Rai, Haryug Singh (Energy Specialization) \*1

Ren, Jesse

Reynolds, Hailey Michelle (Water Resources Option) \*

Santos, Dian Angelo

Shen, Oliver (Water Resources Option) \*

Stojanovic, Borislav

Suen, Julia Hoi-Yiu (Hydrology Specialization) \*\*

Thurai, Kohulan Calvin (Hydrology Specialization)

Tian, Yuan (Pollution Treatment and Control Specialization) \*\*

Tucker, Madeline Gabriela \*

Vandenberg, Lukas Martin \*†

Viegas, Declan Anthony (Pollution Treatment and Control Specialization)

Vigneswaran, Sujeethan (Management Sciences Option) \*

#### Wolfsohn, Joshua Paul Schwartz \*

Yun, Mathew Tian Yang (Hydrology Specialization, Pollution Treatment and Control Specialization) \*

Zhao, Yili (Energy Specialization) \*†

#### **GEOLOGICAL ENGINEERING**

Cristello, Robert Michael \*

#### Luong, Nathan

Peterka, Chester William (Soil, Rock and Structures Specialization)

Trask, Matthew Jeffrey \*

White, Natalie Anne (Hydrogeology Specialization) \*

Zhao, Ruowen (Hydrogeology Specialization, Soil, Rock and Structures Specialization) \*

- \* With Distinction
- † Dean's Honours List

#### MANAGEMENT ENGINEERING

**Abou Sawan, Nicolas** (Computing Option) \*

Abu-Dumedah, Rawanna \*

Adil, Ashba (Computing Option) \*

Afros, Sheila (Computing Option) \*

Ahillan, Tharani (Computing Option) \*\*

Archer, Justine Sarah (Computing Option) \*

Bacalear, Daniil (Computing Option) \*Barnard, Francois (Computing Option) \*<sup>†</sup>

**Bhalla, Gunchica** (Statistics Option, Computing Option)

Bora, Vatsal (Computing Option) \*

Burke, Paul Liam \*

**Burns, Edward Dylan** (Computing Option)

**Cao, Ming Xun** (Computing Option, Artificial Intelligence Option) \*

**Chen, Tyler Jinn-Lung** (Computing Option) \*

**Chidella, Shivani** (Computing Option) \*<sup>†</sup>

**Chow, Vincent Jonathan** (Computing Option) \*<sup>†</sup>

**Creasy, Benjamin Thomas Sharp** (Computing Option) \*

**Curalli, Julian Alexander** (Computing Option) \*†

El-Refai, Lama (Computing Option) \*

**Exconde, Jillian Dawn** (Computing Option) \*

Farag, Tala (Computing Option) \* Farrahi, Delaram (Computing Option) \*<sup>†</sup>

Fisseha, Bethlehem \*

**Fraser, Scott Stephen** (Computing Option) \*

Gao, Ming (Statistics Option) \*\*

Geist, Ethan \*†

Gupta, Rohan (Computing Option) \*

Hirji, Jenna (Entrepreneurship Minor) \*

Huang, Zhi Ming Adam (Computing Option) \*

Issac, Anand Zacharia (Computing Option) \*

**Jiang, Darren Han-Jun** (Computing Option) \*

Jones, Timothy Francis Marc (Computing Option)

**Khan, Usman Amin** (Computing Option) \*

Kim, Soohyun (Computing Option) \*

Kornberg, Zachary Aaron (Computing Option)

**Krasinski, Caitlan** (Statistics Option, Computing Option) \*<sup>†</sup>

**Kumar, Ashwuni** (Artificial Intelligence Option) \*

Laventhiran, Suvaena (Computing Option) \*

Lin, Emma (Computing Option) \*

Liu, Qirui (Computing Option) \*

Lu, Sabrina (Computing Option) \*

Mak, Pui Ying Janice (Computing Option) \*

Mastantuono, Thomas (Computing Option) \*

**Meiyappan, Aashan** (Computing Option) \*

**Mena, Emilio Andres** (Computing Option) \*<sup>†</sup>

**Mhatre, Mihir Samir** (Computing Option) \*

**Nagtegaal, Eric William** (Artificial Intelligence Option) \*

**Nesarajah, Kokelan** (Computing Option)

Noor, Zain (Computing Option) \*

**Olynyk, Roman Walter** (Physical Sciences Option, Computing Option) \*

**Park, Alexandra Rachel** (Computing Option) \*

Paroski, Liliana \*

Prasad, Karthik (Computing Option) \*

Prevost, Rachel Lauren \*

**Ren, Julia** (Computing Option, Artificial Intelligence Option) \*

**Ren, Victoria JiaYuan** (Computing Option) \*

**Sanghera, Gurleen Kaur** (Computing Option) \*

Selvaraj, Rishega \*

**Selvarajah, Gogilan** (Computing Option) \*

Senthilmanoharan, Geerthika (Computing Option) \*

Shokeh, Dana

**Sivekumaar, Suthan** (Computing Option) \*

**Song, Arden Justice** (Statistics Option, Computing Option) \*†

**Tanveer, Fahmida** (Computing Option) \*

Tonigussi, Paloma Monette \*

**Tu, Mylene Grace** (Entrepreneurship Option, Computing Option) \*

**Visva, Aswine Ajanthan** (Computing Option) \*

#### Walker, Samantha Anne $^\ast$

Wong, Aiden (Computing Option) \*

**Wu, Christiana Zheng** (Statistics Option, Computing Option) \*

Wu, Sharon Yan (Computing Option) \*

You, Olivia (Statistics Option, Computing Option) \*

**Yu, Charles Matthew** (Statistics Option, Computing Option) \*†

Zaidi, Syed Ali Haider (Computing Option) \*

Zheng, Zi Xuan (Computing Option) \*

#### BACHELOR OF ARCHITECTURAL STUDIES

#### HONOURS PROGRAM

Chang, Ardy \* Chen, Nicole Wing daCosta, Alexandra Mariko Forte, Jordan Thomas Kalloo, Salma

#### **DIPLOMA IN ARABIC LANGUAGE I**

Abou Sawan, Nicolas

#### **DIPLOMA IN FRENCH LANGUAGE II**

Abou Sawan, Nicolas

#### **DIPLOMA IN GERMAN LANGUAGE**

Abou Sawan, Nicolas

#### **DIPLOMA IN SUSTAINABILITY**

Balles, Nicole Antoinette Grenapin, Cedric Ma, William Graham Thampaiyah, Ahiesh

CERTIFICATE IN GLOBAL EXPERIENCE

Hu, Xiaoge

# **Outstanding** Achievements

#### **MEDALS AND AWARDS**

GOVERNOR GENERAL'S ACADEMIC GOLD MEDAL Highest standing in a Doctoral program Muhammad Shehryar Khan

GOVERNOR GENERAL'S ACADEMIC SILVER MEDAL Highest standing in an

**undergraduate degree program** Nick Nolan Gharabaghi

#### THE UNIVERSITY OF WATERLOO ALUMNI GOLD MEDAL

**Outstanding academic achievement** Charles Matthew Yu

#### ONTARIO PROFESSIONAL ENGINEERS FOUNDATION FOR EDUCATION GOLD MEDAL

Kiersten Ainsley Overton

#### PEARL SULLIVAN EMERGING GLOBAL LEADERS AWARD

Andrea Chakma

#### ROY DUXBURY LEADERSHIP AWARD

Kathrine Elizabeth Von Friedl

#### THE JOHN FISHER AWARD FOR LEADERSHIP

Julia Nicole Nixon Baribeau

#### THE ALBERT SHERWOOD BARBER MEDAL

Orson Andrew Baines

# Waterloo brings home the gold

Alumni Gold Medal recipients share in the pursuit of discovery, so we created a lasting symbol to honour their achievements.

Since 1970, Alumni Gold Medals have graced the convocation gowns of our top undergraduate and graduate students. The Royal Canadian Mint produced these medals in the past – but in the true spirit of Waterloo, we've decided to make them ourselves.

Carefully crafted on campus in state-of-the-art labs, each medal is created out of nickel superalloy using a 3D printer. The surface is finished by hand to produce a brilliant shine. Through the process of electroplating, the medal is then coated in 24-carat gold. The result is a tribute to Waterloo's most accomplished graduates, made for each proud recipient by members of the University community.



GO INSIDE THE LAB AT uwaterloo.ca/impact-stories/new-gold-medals

> CONGRATULATIONS TO THIS YEAR'S ALUMNI GOLD MEDAL RECIPIENTS! YOU HAVE MUCH TO CELEBRATE, AND EVEN MORE TO ANTICIPATE IN YOUR FUTURE AS UNIVERSITY OF WATERLOO ALUMNI.

# Our tradition of regalia

## THE GOWN

At the University of Waterloo, as at most universities, academic robes are worn only on these special occasions. In the Middle Ages, robes were everyday clothing, and some students were so poor they had nothing else to wear. The black wrapper now called a "gown" served them as jacket, coat and sometimes bedclothes. Stone college buildings of the Middle Ages were unheated and the colourful "hood" could be pulled up to help keep out the cold wind. Today, the officers of the University, faculty members and graduating students all wear garments that are symbolic, not functional.

The scholars and students in long-ago universities were generally monks and other members of church orders. Over time, their vestments came to identify their universities. There are many variations, and the exact hood, gown or hat worn by an individual are determined by the university where they qualified. The array of colours and styles demonstrates the worldwide range of universities from which Waterloo's faculty have come.

## THE HOOD

Hoods are unique in design and colour to each degree and each university. The academic dress chosen for Waterloo is patterned after that of Oxford, the world's oldest English-speaking university. The chief officers on the convocation platform – the Chancellor (the ceremonial head of the University) and the president (who is also Vice-Chancellor) – wear gowns of the Oxford cut and trim, each with its own distinctive colour. The gowns worn by recipients of honorary degrees have the same design, as do the black gowns worn by candidates for regular degrees, and the red-and-green gowns which are Waterloo's regalia for Doctor of Philosophy degrees.

The ritual at convocation reflects the old custom that anyone in a university could wear a gown, but a hood was the symbol for a degree.

Academic Dress

## **BACHELOR'S**



Bachelor of Applied Science

Bachelor of Accounting and Financial Management





Mathematics





 $\cup$ 



Bachelor of Computer Science



Bachel







Business and Digital Arts

Bach

Knowledge Integration

## **PROFESSIONAL DOCTORATE**





## **MASTER'S**



## DOCTORAL







**HONORARY DOCTORATE** 











Mathematics



Doctor of Science

Doctor of Environmental Studies







Laws

















uwaterloo.ca #UWaterlooGrad