

Carleton UNIVERSITY



**159TH CONVOCATION
2023**

June 15, 2023

2023 Spring Convocation

Convocation at Carleton	3
Officiating Officers	5
Assisting the Chancellor	6
University Awards.....	7
Medallists in the Graduating Class	8
Ceremony 10 – Thursday, June 15, 9:00 a.m.....	11
Convocation Speaker, Larry W. Kostiuk, Dean, Faculty of Engineering and Design	12
Order of Proceedings.....	13
 Doctor of Philosophy; Master of Applied Science; Master of Engineering; Bachelor of Engineering	
Ceremony 11 – Thursday, June 15, 12:30 p.m.....	19
Convocation Speaker, Larry W. Kostiuk, Dean, Faculty of Engineering and Design	20
Order of Proceedings.....	21
 Master of Applied Business Analytics; Master of Applied Science; Master of Arts; Master of Engineering; Master of Entrepreneurship; Bachelor of Engineering	
Ceremony 12 – Thursday, June 15, 3:30 p.m.....	29
Convocation Speaker, Larry W. Kostiuk, Dean, Faculty of Engineering and Design	30
Order of Proceedings.....	31
 Doctor of Philosophy; Master of Applied Science; Master of Engineering; Bachelor of Engineering	
Alumni Association Welcome	37

O Canada

O Canada! Our home and native land!
True patriot love in all of us command,

Car ton bras sait porter l'épée,
Il sait porter la croix!

Ton histoire est une épopée
Des plus brillants exploits,

God keep our land glorious and free!
O Canada, we stand on guard for thee.

O Canada, we stand on guard for thee.

Convocation at Carleton University

History

Carleton University is unique within the Ontario university system for several reasons. It was founded in 1942, not by state or church, but through a community movement initiated by the YMCA to provide non-sectarian education for the thousands of men and women who came to Ottawa in support of the war effort. Because of these roots, Carleton has, throughout its history, attempted to meet the needs of the community by making its programs and resources widely available through innovative technologies and lifelong learning opportunities.

Today, Carleton stands among the best comprehensive universities in Canada. It is a dynamic, research-intensive university, committed to providing an outstanding learning experience for more than 30,000 students. The university offers more than 150 majors, specializations and concentrations in areas as diverse as public affairs, journalism, art and culture, engineering, high technology and international studies.

Today's Convocation ceremony (the calling together of the academic assembly) has its roots in university traditions of medieval Europe.

Coat of Arms



The coat of arms was presented to the university by His Excellency The Right Honourable Ramon John Hnatyshyn, Governor General of Canada, on November 15, 1992, as part of Carleton's 50th

anniversary celebrations. It is described in heraldic terms as follows: Sable a maple leaf Gules irradiated and charged with an open book Argent; And for a Crest: On a wreath Argent Sable and Gules a Phoenix Gules quilled and beaked Or issuing from flames proper; And for a Motto: Ours the Task Eternal; And for Supporters: on a grassy mount on either side a raven Sable beaked and membered or armed Gules.

The open book on the maple leaf signifies that Carleton University is in the nation's capital and that learning is open to all who wish to partake of it. The phoenix, the legendary eternal bird, symbolizes the renewing of learning from older foundations, in recognition of Henry Marshall Tory's role in the founding of the university when he was 78 years old. Ours the Task Eternal is taken from a Walt Whitman poem entitled Pioneers and ties in with the eternal quality of the phoenix.

The Carleton University coat of arms therefore symbolizes sound learning, good citizenship, and the highest hopes of humanity.

The Mace



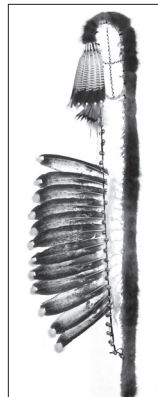
The mace is a staff symbolizing authority. In the days of knighthood, it was a weapon, but after the 16th century, it became solely a symbol of authority carried by a distinguished member of an assembly. It is used on ceremonial occasions to signify the right of an individual or institution to perform a certain function — in the case of universities, to grant degrees.

At Convocation, the mace is carried by the Marshal of Convocation. During the ceremony, the mace is displayed

as an embodiment of the authority of the university.

Carleton's mace was presented to the university in 1976 as a gift from the Chair of the Board of Governors at that time, Mr. Hyman Soloway. It is a silver-plated staff about one metre long. At the upper end there is a bowl marked with the university's coat of arms and the university motto in Latin and English — Opera Nobis Aeterna and Ours the Task Eternal. From the upper portion of the bowl rises a phoenix. Traditional oak leaves surround the lower end of the staff.

Centre for Indigenous Support and Community Engagement – Eagle Staff



The Eagle Staff is sacred to many Indigenous peoples. It represents the strength and resilience of Indigenous communities and is traditionally carried by someone who has served their community in combat, in leadership or spiritually. The Eagle Staff is a Grandmother staff and was created to be nurturing to our students. It was created by Joel "Bear" Babin who is Algonquin from Wahgoshig First Nation, and who practises Midaywin Traditional ceremonies. Mink fur on the staff represents the best

of luck and success to our graduates. The Desert Eagle Hawk's feathers on the staff protect the Northern Flicker's feathers, symbolizing that we are there to guide our students. There are 12 feathers on the staff from a juvenile female eagle. Sage and Sweetgrass are attached and the braided material signifies our ties to the students and the colours represent the walks of life.

The Diploma

The diploma graduates receive at Convocation is the certificate of qualification which publishes the fact that the student has fulfilled all the requirements and completed the prescribed course of study for the degree. As the senior academic legislative body of the university, it is the Senate which has determined whether the requirements have been met. The signatures of the Chancellor and the President of the university appear on the diploma: the Chancellor because of his or her role in conferring the degree, and the President who, as Chair of Senate, certifies that Senate has enacted the required motion to award the degree. The seal of the university is affixed to the diploma as a mark of authentication.

Academic Dress

The academic dress of Carleton University results from a compromise between that found in the ancient foundations of Britain and Canada and the American Intercollegiate Code.

As well, Indigenous graduates and faculty may choose to wear traditional Indigenous clothing in lieu of a gown. The hood may be carried rather than worn, depending on cultural protocols. Carleton acknowledges the diversity of Indigenous peoples, communities and nations and recognizes that traditional Indigenous clothing may vary.

All three academic hoods — bachelor's, master's and doctor's — are of the simple or Oxford shape. The bachelor's hood is made of black stuff. The master's and doctor's are made of black silk. All are lined with silver silk, with two chevrons, one of red and one of black. From bachelor's to doctor's, the hoods are progressively longer and opened to show more of the lining.

The velvet border of the hoods denotes the degrees granted according to the following colour combinations. In some cases a distinguishing cord is sewn slightly in from the lower border: accounting is lemon yellow; applied business analytics is emerald green; applied science is orange with a black cord; architecture is hot pink; architectural studies is hot pink with a black cord; arts is white; business administration is camel brown with a black cord; cognitive science is sky blue with a gold cord; commerce is camel brown; communication and media studies is navy blue; computer science is walden blue; economics is old gold; engineering is orange; entrepreneurship is palmetto green; global and international studies is lavender; health sciences is firebird red; human computer interaction is smoke blue; humanities is white with a red cord; industrial design is toreador red; master of information technology is maize; bachelor of information technology is maize including a green chevron to denote the joint degree and applied diploma from Carleton University and Algonquin College respectively; infrastructure protection and information security is sky blue with a red cord;

international business is camel brown with a red cord; journalism is white with a black cord; journalism and humanities is white with a black and red cord; mathematics is hunter green; media production and design is white with a black and gold cord; music is pink; philanthropy and non-profit leadership is toreador red with a black cord; political management is sky blue with a black cord; public affairs and policy management is peacock with a gold cord; public policy and administration is peacock with a black cord; science is Spanish yellow; social work is crimson; and doctor of philosophy is royal purple.

The master's and bachelor's gowns, to be worn with the above hoods, are of full length, made of black stuff, with a gathered yoke behind, and long open-fronted sleeves. The doctoral gown is of full-style, made of fine royal blue cloth with facings of light blue silk, with a full gathered yoke behind, and closed sleeves with an opening at the elbows.

The two shades of blue in the doctoral gown are those of the United Nations, and recognize the university's long-standing interest, from its earliest years, in international affairs and issues. The colours were chosen when the university awarded its first honorary degree in 1954 to the second secretary-general of the United Nations, Dag Hammarskjöld. The tradition of awarding honorary degrees to secretaries-general of the United Nations has continued since that time.

The gown of the honorary Doctor of Laws, Literature, Music, Science, Engineering, Architecture or Fine Arts is a full robe with square collar at the black and modified T Sleeve. It is made of royal blue cloth with light blue facings that continue around the back. The light blue also trims the bottom edge and slit of the modified sleeve.

The hood has the same lining as that for the degrees granted by examination, and is bordered with royal purple for the degree of Doctor of Laws; vibrant blue for the degree of Doctor of Literature; pink for the degree of Doctor of Music; red for the degree of Doctor of Science; orange for the degree of Doctor of Engineering; hot pink for the degree of Doctor of Architecture; and dark cardinal for the degree of Doctor of Fine Arts.

Alumni Hall

The Alumni Hall and Sports Centre opened in 2005, and serves more than 750,000 visitors every year. The new centre has tripled the usage for athletic and other activities and has doubled the size of the cardio facilities at the university. The Alumni Hall and Sports Centre, which also houses the Ravens' Nest, the home of men's and women's varsity basketball teams, welcomes graduands and their families twice a year during Spring and Fall Convocation ceremonies. The Carleton University Alumni Association donated \$2.5 million towards construction of this exceptional facility.

Officiating Officers

Chancellor



Yaprak Baltacioğlu, LL.B., M.A.

Yaprak Baltacioğlu has been one of Ottawa's most seasoned deputy ministers, serving as a trusted advisor to Prime Ministers and numerous ministers. Over her career, she has led the Departments of Agriculture and Agri-Food, Transport, Infrastructure, and Treasury Board Secretariat. Now retired, Baltacioğlu serves on the Boards of Deloitte Canada and Chile, MDA, Canadian Standards Group, and Canadian Nuclear Laboratories. She is a Senior Distinguished Fellow at the University of Toronto's Munk School of Global Affairs and Public Policy. Baltacioğlu is a Member of the Order of Canada.

President and Vice-Chancellor



Benoit-Antoine Bacon, Ph.D.

Benoit-Antoine Bacon was appointed as President and Vice-Chancellor on July 1, 2018, and was recently renewed for a second five-year term. He joined Carleton from Queen's University where he served as Provost and Vice-Principal (Academic). His first academic appointment was at Bishop's University. He is a three-time recipient of Bishop's Merit Award for exceptional performance in teaching and research. Bacon holds a Ph.D. in neuropsychology from the University of Montreal, after which he completed an NSERC-funded postdoctoral fellowship at the University of Glasgow in Scotland. His research in the field of cognitive neuroscience focuses on the links between brain activity and perception in the visual and auditory systems, as well as on multi-sensory integration.

Chair of the Board of Governors



Greg Farrell, FCPA, FCA

Greg Farrell retired as President and Chief Operating Officer of Giant Tiger Stores in 2015. As an active community member, Farrell remains on the Board of Directors of Giant Tiger Stores Limited, a role he has held since July 2000. Farrell has also served as Director of the Ottawa Senators Foundation and member of the Finance Council of the Roman Catholic Archdiocese of Ottawa-Carleton. Following a two-year term as Vice-Chair on the Carleton Board of Governors, Farrell now serves as Board of Governors Chair. Farrell is a proud alumnus ('88) of Carleton University with a Bachelor of Commerce degree.

The Presiding Officer of Convocation for today's ceremonies is the Chancellor of the University, Yaprak Baltacioğlu, LL.B., M.A.

Accompanying her on the podium is the President and Vice-Chancellor of the University, Benoit-Antoine Bacon, Ph.D.

Assisting the Chancellor

Marshal of Convocation

Elinor Sloan, *Ph.D.*

Professor, Faculty of Public Affairs

Eagle Staff Carriers

Michaella Michaud-Hunter

Ojibwe Nation

Adam Saulis

Wolastoq from Tobique First Nation

The university acknowledges the many faculty, staff, campus departments and ancillary operations for their valuable contribution to the success of the Spring 2023 Convocation ceremonies.

University Awards

2022/23 Board of Governors Award for Outstanding Community Achievement



The Board of Governors Award recognizes the spirit of student volunteerism and substantial community contribution while studying full time at Carleton University.

Dakota Livingston, *BGINS*

As the recipient of the 2022/23 Board Award, Livingston has consistently shown what it means to be a Raven through her leadership and commitment to community building. During her time at Carleton, she has served as President of the Carleton Academic Student Government, Senator on the Carleton Senate, Vice President of Research at the Carleton Human Rights Society, and volunteer for the Ausome Ottawa Community Partnership Project.

Her spirit of volunteerism is not only where her excellence shines. Livingston has also demonstrated profound achievement by receiving multiple awards and scholarships for outstanding academic performance. This success has seen her achieve Dean's Honour List status in 2020 and 2021, the Murdoch Maxwell MacOrdum Scholarship and the David A. Golden Scholarship for Academic Achievement.

Medallists in the Graduating Class

Governor General's Medal

Awarded annually to a student standing at the head of the graduating class at the graduate and undergraduate levels

Donor: Her Excellency the Governor General of Canada

Martin Dobrev Dimitrov
David Luong
Simon Spencer VanDerLoo

Chancellor's Medal

Awarded annually in the name of the Chancellor of the university to graduating students of outstanding academic achievement

Waleed Darwish

President's Medal

Awarded annually in the name of the President of the university to the student with the highest standing in a 15-credit program of studies

Sergiy Onyshchenko

University Medal for Outstanding Graduate Work

Doctoral level

Awarded, when merited, for outstanding graduate work at the doctoral level

David Luong

Master's level

Awarded, when merited, for outstanding graduate work at the master's level

Lisa Sarraf

University Medal

Awarded annually, when merited, to the graduating students standing highest in the Faculty of Arts and Social Science, Faculty of Engineering, Faculty of Public Affairs, Faculty of Science, Sprott School of Business

Faculty of Arts and Social Sciences

Erik Andrew Morris
Boyang Wang
Iain James Burge
Kyle John Grant
Lauren Suzanne Carolyn Gowans
Sarah Amalie Margaret Ham
Katherine Creighton Hoferek
Zita Maria Kolano
Annie Sara Steep
Tayler Mackenzie Wells

Faculty of Engineering

Anuj Mathur
Joshua Paul Blondin
Harjap Singh Gill
Ava Theresa Bebbington

John David Clarabut
Susan Elizabeth Ould-Brahim
David Charles Szonyi
Hannah Sachiko Villeneuve
Martin Sasseville

Faculty of Public Affairs

Shireen Faisal
Emily Mengyi Fu
James Alexandre Huot Knox
Thompson Callum Richards
Sophie Ivanka Shields
Sara Mizannojehehdehi
Morgan Gray Simms
Antoinette Grace Myrtle Steele
Thea Gillian Foss Wallace
Jillian Claire Fox
Delaney Dawn Heinrichs
Gillian Bree Smith

Faculty of Science

David Gregory Hobson
Eren Sulutas
Madison Elisabeth Adams
Amin Fereidooni
Zachary Louis Levy
Benjamin Nikkel
Jenna Lynn O'Neill
Leyla Katherine Pourang

Sprott School of Business

Andrew John Elliot
Marie Alicia Kelly
Joshua Victor Oommen

Senate Medals for Outstanding Academic Achievement

Graduate

Awarded, when merited, to graduating students of outstanding academic achievement

Doctoral level

Patricia Bérubé
Anastassia Gharib
John Marshall Palmer
Eric J. Spero
Marina White
Hui Zhang

Master's level

Danielle Lyn Carron
Justine Coutu
Timothy Alexander Hapitas
Catalina Lisa-Maria Hernandez
Simon Martial Kuttner
Daniel George Kyrollos
Marguerite Roslyn Rodrigues

Senate Medals for Outstanding Academic Achievement Undergraduate

Awarded, when merited, to graduating students of outstanding academic achievement

Jessica Katherine Arsenault
Leah Erica Chabot
Nathan Paul DaNova
Emma Grace Fox
Nicholas Anthony Laurenzio
Cassandra Jade Noble
Claire Roberta Petite
Ayaan Saigal
Lacey Thompson
Saja Wehbe
Ryan Dempsey
Davis Charles MacAdam
Anthony Patrick Joseph Louis Dooley
Ryan Bruce Lachlan Fife
Jonah Sean Gaudet
Sarah Louay Jaber
Aashna Narang
Paul Ucheojor Okenne
Nicholas Adam Roman Sendyk
Matthew King Wah Siu
Nicolas Alexandre Tuttle
Millan Yifeng Wang
Buster Mansell Hagen Biggs
Ayah Hassan
Gregor Cameron Nordstrum
Manav Dimplekumar Shah
Kaileigh Summers La Belle
Nikki Michelle Mosca
Maryn Madeline Pegan
Paula Gabrielle Rodrigo
Keira Marie Roy
Asta Merie Mae Stalker
Alexander Jesse Dolansky-Overland
Evening Isabella K'necht
Alexandra Janis McDonald
Nathalie Suzanne McMullen
Vivianne Annette Emma Stewart
Remmy Clare Ackert-Fraser
Khushi Bhardwaj
Ludivine DouDou Blais
Paul Bossert
Julia Glen Jette Bovaird
Aimanalias Mary Chung
Ellen Margaret Nyman Coady
Aaliyah Coutinho
Jennifer Ann Crookshank
Amy Janet Dalton
Leilah Altagrace Debelles
Budyane Dadija De Zoysa Siriwardene
Krystal Anabel Hernandez-Mejia
Alexis Gloria Hinkson
Tristan Marshall
Meghan Elizabeth Taylor Mitchell
Swetha Krishna Naik
Amy Corrina Ortis
Katia Perry
Sabrina Perry
Harley Shaye Purcell

Brooke Elizabeth Smith
Mayursai Reddy Viswanath
Peter Bezanson
Steven Ellis Chadwick
Bryan Yingkai Cheng
Zicheng Gao
Robert Douglas Gillis
Xin Ping Liao
Maria Katrina Ronquillo
Youssef Sabry
Andrii Stepura
Cara Teresa Swab
Malak Ali Al Daraawi
Jayden Adam Arif-Pardy
Melanie Elizabeth Marie Beaudin
Jordyn Elise Gattie
Kunwook Kim
Daniel Lewis Csiszar Klotz
Branden Lynch
Conall Robert McCutcheon
Janani Sivathayalan
Augusto Jose Urena Pichardo
Tristan Murray Warnock-Juteau
Natalie Anne Whitmore
Mahmoud Elmasry
Shaolin-Rose Gawat
Juan Fernando Gonzalez Hernandez
Mikayla Joy Hinton
Molly Louise Bruinink Hutchinson
Rhys James Emmett Patacairk
Victoria Faith Platzer
Jonah Meir Sider-Echenberg
Zillah Van Jaarsveld
Cecelia Grace Chambers White
Jason Ariel Aarenau
Emma May Cole
David Andrew Greenwood
Emma Victoria Hamilton
Moh'd Obai Samer Khatib
Rianna Grace Lim
Janae Latetia McCluskey
Jody Amanda Raymond
Vincent Deslauriers
Rayyan Adil Esmail
Georgia Claire Evans
Amrita Doreen LaRose
Sarah Denise McGrath
Jewelyann Simone Ouimet
Ryan Adam Bellefeuille
Grace Elizabeth Ben
Eric Guy Boulay
Sierra Joy Geuzebroek
Megan Heather Harris
Lucas Ryan Robert Knight
Alexandra Helen Louise Kouri
Krista Malandrucolo
Steve Mansour
Darcy Helen Mayer
Micaela Richichi
Devon Leigh Margaret Sauve
Matvey Tyurin
Ashley Dawn Wheeler
Sarah Naomi Zaitlin
Nabeeha Ali

Eric Jacques Joseph DeMarbre
Meaghan Jeanette Gragtmans Dickson
Adonis Hillson Lau
Janine Kira Wonnfong Loo
Mark Stevenson Mckessock
Camryn Angela O'Donnell
Joel Andrew Crawford
Jillian Rose Davis
Wesley Robert Janson
Hend Ali Mhemed
Alyssa Danielle Turner

Recognition of High Academic Achievement

The designation of *with Distinction* and *with High Distinction* recognizes outstanding academic achievement by undergraduate students.

In order to have the designation awarded, the following criteria must be met:

- Students must have completed at least 10.0 credits at Carleton University toward the degree;
- For the designation *High Distinction*, an overall cumulative grade point average equal to or greater than 10.40 (on a 12-point scale);
- For the designation *Distinction*, an overall cumulative grade point average equal to or greater than 9.80 (on a 12-point scale).

Ceremony 10

Thursday, June 15, 9:00 a.m.

Degrees conferred at Spring Convocation are awarded by Senate in February and in June.
Degrees awarded in February are denoted by an asterisk (*)

Convocation Speaker

Larry W. Kostiuk

Dean, Faculty of Engineering and Design



Larry W. Kostiuk began a five-year term as Dean of the Faculty of Engineering and Design on July 1, 2019.

Prior to joining Carleton University, he served in several roles at the University of Alberta, including Chair of the Department of Mechanical Engineering (2002-2012), Associate Vice-President – Research (2015-2018), and Director of Future Energy Systems (2016-2018) – a Canada First Research Excellence Fund program.

Kostiuk's research specializes in chemical reacting flows, combustion (flaring, premixed flame dynamics, and pool fires), pollutant formation and control, thermodynamics, micro- and nano-fluidics (continuum and non-equilibrium molecular dynamic modeling), and energy conversion systems.

He has been a visiting professor at Centre National de la Recherche Scientifique in France, (2014-2015, 1997, 1996, 1995), Carleton University (2014), the Indian Institute of Technology (2013), the University of Cambridge, (2001-2002), and was a special advisor to the Assistant Deputy Minister of the Science and Innovation Division of the Department of Economic Development and Trade.

His research record has resulted in him being named a Fellow of the Canadian Academy of Engineering (2012) and Fellow of the Canadian Society for Mechanical Engineering (2011). His research group also won the Summit Award for Environment Excellence from the Association of Professional Engineers, Geologists, Geophysicists of Alberta (2007).

Order of Proceedings

Ceremony 10

Thursday, June 15, 9:00 a.m.

Chancellor Yaprak Baltacioğlu, LL.B., M.A., presiding

The audience is requested to stand when the Academic Procession arrives and to remain standing for the Elder's greeting and for O Canada. At the conclusion of the ceremony, the audience will wait until the Academic Procession has left before exiting the Fieldhouse.

Processional Music

Opening Ceremony Video

Elder Barbara Dumont-Hill
Algonquin Nation – Kitigan Zibi

O Canada (The audience is invited to sing. Please see Page 2)

Introduction by the Master of Ceremonies

Rafik Goubran, *Ph.D.*
Vice-President (Research and International)

Convocation Address

Larry Kostiuk, Dean, Faculty of Engineering and Design

Conferring of Degrees and Awarding of Medals

Warrant
Elinor Sloan, *Ph.D.*
Marshal of Convocation

Closing Address by the President and Vice-Chancellor

Benoit-Antoine Bacon, *Ph.D.*

Recessional Music

Doctor of Philosophy

(Presented by Associate Professor Amir Hakami
Associate Dean, Faculty of Engineering and Design)

Electrical and Computer Engineering

Ahmed Abada

Auction-Based Mechanisms for Power Grid
Balancing using Cloud Datacenters
Supervisors: M. St-Hilaire and W. Shi

Amirhossein Asgharnia Gourabjiri

Learning of Deception in Adversarial
Games with Hierarchical Multiobjective
Reinforcement Learning
Supervisors: H. Schwartz and M. Atia

Joseph Osedome Boi-Ukeme*

A Robust Discrete Event Method for the
Design of Cyber-Physical Systems
Supervisor: G. Wainer

Anastassia Gharib*

Cluster-Based Information-Centric Wireless
Sensor Networks Management for Enhanced
User Security Satisfaction in the Internet of
Things
Supervisor: M. Ibn Kahla

Neda Haghighatpanah

Compressed Sensing of Block Sparse Signals
with Known and Unknown Block Borders
Supervisor: R. Gohary

David Luong

Quantum Radar Signal Processing
Supervisors: S. Rajan and B. Balaji

Bruno St-Aubin*

A Web Based Architecture to Operationalize
Geospatial Simulation Environments
Supervisor: G. Wainer

Guillermo German Trabes

Efficient DEVS Simulations Design on
Heterogeneous Platforms
Supervisors: G. Wainer and V. Gil-Costa
In Cotutelle with Universidad Nacional de San
Luis

Michael Joseph Vezina

Qualitative Uncertainty Reasoning in
AgentSpeak
Supervisor: B. Esfandiari
Concentration in Software Engineering

Youhao Yu

Reconstruction of Compressive Sensed (CS)
Images with Deep Equilibrium Model (DEQ)
Based on Iterative Shrinkage-Thresholding
Algorithm (ISTA)
Supervisor: R. Dansereau

Master of Applied Science

(Presented by Associate Professor Amir Hakami
Associate Dean, Faculty of Engineering and Design)

Biomedical Engineering

Bahareh Chimehi

Sensor System to Determine Force and
Direction for Push Handles on Patient
Transfer System

Jaser El-Habrouk*

The use of EEG and VR in Mental State
Recognition
Specialization in Data Science

Janine Shao Chen Hsu*

Clinical Model for Cerebral Vasospasm
Prediction
Specialization in Data Science

Shahad Shakir*

Morphological Effects of the
Microenvironment Structure on Human Fetal
Lung Fibroblast Cells

Electrical and Computer Engineering

Ali Abdelbadie

DoA Estimation in Hybrid Analog and
Digital Receivers using Orthogonal Analog
Combiners
Specialization in Data Science

Ammar Sayed Mahmoud Abdelsamie*

Novel Low-complexity Neural Network Aided
Detection for Faster-Than-Nyquist (FTN)
Signalling in ISI Channel
Specialization in Data Science

Victoria Anuoluwa Ajila

Adapting Genome-wide microRNA Discovery
and Target Prediction to Specific Species
Specialization in Data Science

James Alec William Baak*

Modular Verification of Hierarchical
Component-Based Software Systems

Juan Pablo Contreras

Methods and Techniques for Inter-cloud Data Transfers

Joshua Stewart Fryer*

Arch-Lang : A DSE Tool for Flexible Hardware/Software Co-Design
Concentration in Modelling and Simulation

Zein Hajj-Ali*

Depth-based Patient Monitoring in the NICU with Non-Ideal Camera Placement
Specialization in Data Science

Mouhcine Harib

Deep Reinforcement Learning for Robust Control of 6-DOF Robotic Manipulators

Vinay Ven Kukutla*

TC-GVF: Tensor Core GPU Based Vector Fitting Via Accelerated Tall-Skinny QR Solvers

Sajib Kumar Kuri*

QoS Performance Measurement Through SRv6 Network Programming for Smart City IoT Traffic

Daniel George Kyrollos*

Region-of-Interest Detection for the Neonatal Intensive Care Unit
Specialization in Data Science

Jintao Liang*

System Analysis for Satellite Networks with Free-Space Optical Links

Abdullah Fahmi Mustafa Mahmoud*

Optimal Selection of IPsec-Based Security Mechanisms in Resource Constrained IoT Environment

Raveen Narendra Babu*

Performance Evaluation of Transformer-based NLP Models on Fake News Detection Datasets

Chimezirim Miracle Nkemdirim

Linear Quadratic Optimal Control of Nonlinear Dynamic Systems

Joseph Omakor

Particle Swarm Optimized Fuzzy Logic Energy Management of Hybrid Energy Storage in Electric Vehicles

Bohdana Sereda*

Supporting End Users in Securing IoT-Enabled Smart Home Devices

Yitong Shen*

Remaining Useful Life Prediction of Proton Exchange Membrane Fuel Cells Using Genetic Algorithm Based Nonlinear Autoregressive Exogenous Network

Eric William Smith*

Tilted Fibre Bragg Grating Based Encoder System for Rapid Temperature Measurements

Sushmi Thushara Sukumar*

Knowledge Graph Generation for Unstructured Data Using Data Processing Pipeline

Joshua Randy Wilson*

Using Bipartite Matching and Detection Transformers for Document Layout Analysis Transfer Learning

Xiaochen Xin*

Silicon-Based Polarization-Insensitive Optical Antenna Design and Experimental Characterization of Optical Phased Arrays

Abdul Mutakabbir

Muti-Modality Federate Learning with Multi-Source Data for Forest Fire Prediction
Specialization in Data Science

Master of Engineering

(Presented by Associate Professor Amir Hakami
Associate Dean, Faculty of Engineering and Design)

Biomedical

Nasim Khalili

Parastoo Mashreghimoghadam

Mobina Nasiri

Roshani Rameshbhai Prajapati*

Pooja Sehdev*

Sridhanussh Srinivasan

Electrical and Computer

S M Abu Adnan Abir

Abhishek Ahuja

Concentration in Software Engineering

Maha Ali

Concentration in Software Engineering

Abdul-Aziz Khaled Al-Najjar

Specialization in Data Science

Hardik Mahendrabhai Baraiya

Neeraja Srivalli Basha

Concentration in Software Engineering

Aayushi Rajeshkumar Bhatt*

Aditi Biswas*

Akhil Reddy Bollaram*

Manas Maheshchandra Chamola*
Mingyu Chen
 Concentration in Software Engineering
Shivayashwanth Chikkondra*
Sai Rakesh Dogga
 Concentration in Software Engineering
Raghu Rami Reddy Dondeti*
Aishwarya Eswaramoorthy*
Riddhy Prashantkumar Gaywala
Amarnath Gutha*
Filmon Girma Hailemariam
Mahshid Hosseini*
Mohamed Hozayen
 Specialization in Data Science
Aaron Wing Ho Huang*
Divya Suresh Jadhav
 Concentration in Software Engineering
Milind Kar Ray*
Harshdeep Kaur
 Concentration in Software Engineering
Dushyant Dharamveer Kaushik
Lakshmi Saikumar Kothuru
 Concentration in Software Engineering
Sumeet Kour*
Nihal Kulkarni
Tao Lu
Harshil Dharminkumar Maniar
 Concentration in Software Engineering
Parthkumar Ketanbhai Mansuriya
Gunja Mehta
 Specialization in Climate Change
Arshad Mehtiyev
 Specialization in Data Science
Venkatesan Mohan
 Concentration in Software Engineering
Kartheeswaran Murugesan*
Jahn timer Musunuru*
Khushali Vikrambhai Nagar
Sanhita Suresh Paluskar*
Ashok Mukeshkumar Panchal
 Concentration in Software Engineering
Hongbo Pang
Vidhiben Tarunbhai Parbadia
Akshar Dharmendrakumar Patel
 Specialization in Data Science
Deep Bhupesh Patel
 Concentration in Software Engineering
Nirmalkumar Jagdishbhai Patel*
 Concentration in Software Engineering

Shrushti Jigneshbhai Patel
Vedant Jitendrabhai Patel
 Concentration in Software Engineering
Virat Hareshkumar Patel
Vrajesh Nimeshkumar Patel*
Vishal Kiritkumar Pateliya
Mounika Peddolla*
Ronisha Ronikkaraj*
Mahitha Sangem
 Specialization in Data Science
Shailesh Bharatbhai Sankdasariya*
Sai Kiran Settibathula*
Harsh Rupesh Shah
Hinay Umeshkumar Shah*
Kush Vinaybhai Shah
 Concentration in Software Engineering
Maulik Chiragkumar Shah*
Meet Divyesh Shah
Riya Rajeshkumar Shah
 Concentration in Software Engineering
Rushil Amitbhai Shah
 Concentration in Software Engineering
Samkit Umeshkumar Shah*
Sanjana Shah*
 Specialization in Data Science
Arka Singh
 Specialization in Data Science
Astha Dinesh Soni
 Concentration in Software Engineering
Sharmidha Soundararajan*
Vijayalakshmi Sriram
 Specialization in Data Science
Azhar Talha Syed*
 Concentration in Software Engineering
Singamala Tanuja*
Ramya Krishna Thammineni*
Zhuang Tian*
Aditya Kuldeep Trivedi*
Dharmik Amitkumar Trivedi*
Khushbu Bipinbhai Trivedi
Charan Vemula*
Gnaneswara Reddy Vulavapalli*
Bingxiang Wu
Yuxin Wu
Kongze Zhu
Banu Yasmeen*
 Specialization in Data Science

Bachelor of Engineering

(Presented by Professor Niall Tait
Chair, Department of Electronics)

Biomedical and Electrical

Nafe Ahmed

Mohammed Ali Abdullah Al-Hamed

Aiman Ali Ahmed Al-Tam

Junaid Ahmed Askari

Muhammad Saad Babur

Daniella Cerqua

With Distinction

Co-operative Education

Taylor James Clark

O'Dane Daniel Junior Clarke

With Distinction

Co-operative Education

Tyler Courtland

Kate Margaret Delaney*

Ryan Dempsey

With High Distinction

Co-operative Education

Vincent Gagnon*

Minor in Computer Science

Nicolas Geoffrey Garay

Boris Hadzalic

With High Distinction

Raqib Ahmed Khan*

Tünde Lapohos

With High Distinction

Co-operative Education

Lucas Martin Mirowski

With High Distinction

Co-operative Education

Oyinkansola Halimot Oladipupo*

Titus Priscu

Dylan Keddy Rouse

Minor in Neuroscience and Mental Health

Co-operative Education

Malak Saif El Nasr

With High Distinction

Miles Roger Sutherland

Priya Tailor

Suren Vahidi

Nikita Volochay

With High Distinction

Wapei Diana Wadawasina

With High Distinction

Co-operative Education

Electrical

Dalal Abdullah

Amer Abi Hana

Yaser Mohammed Aburamadan*

Nader Ahmadi

Co-operative Education

Eemaan Ahmed

Minor in Mathematics

Isaac Philips Alex

Zayed Ahmed Mohammed Saleh Al Sharafi

Hanan H. A. H. Alshatti

Ghassan Arnouk

Co-operative Education

Samuel Abraham Band

Vladislav Bandin

Co-operative Education

Emily Ann Baxter

With Distinction

Minor in Music

Co-operative Education

Noel Boban*

Shawn Camilus

Saad Chehade

Mingzhi Chen

Jashoni Ansun Neville Clarke

Tyler James Crigger

Haotian Dai*

Vasilii Diachenko*

Amir Y. A . Elharan

Zakaria Rashid Farah*

Ranishka Nirmal Fernando

Co-operative Education

Phillippe Forster

With High Distinction

Justin Gregory Garth

Olabomi E. Garuba

Co-operative Education

Nayan Gungadin

With Distinction

Co-operative Education

Vi Kiet Ha

With High Distinction

Co-operative Education

Muhammad Hamza

With Distinction

Co-operative Education

Sachithra Hapuarachchige Don

Thalia Hartwig

With High Distinction
Co-operative Education

Abdelaziz Hassan Hassan

Benjamin Richard Tidman Hinchliffe*

Dongrui Huang*

George Huang

With High Distinction
Co-operative Education

Youssef Alaa Abdalla Ibrahim

Ifechukwu Innocent Ike-Orji

Alina Jacobson*

Minor in Mathematics

Connor Knowlton Judd*

Isuru Kasun Udayawickrama Kabamullage Don

Joseph Kajjouni

Amarveer Kang

Shailesh Kapdi

With High Distinction

Rabeya Khan*

Georgios Korkolis

Co-operative Education

Patric Aaron Laub

Davis Charles MacAdam

With High Distinction
Co-operative Education

Andrew Mackinnon

Zhixuan Mai*

Minor in Statistics

Dharsinee Manohur

Minor in Business for Engineers

Victor Daniel Marsik

Minor in Computer Science
Co-operative Education

Anuj Mathur

With High Distinction
Co-operative Education

Brian Patrick McDonald

With High Distinction

Zeyad Ahmed Menesy

Galen Bryan Hunter Moir

With Distinction

Mackenzie John Austin Moore

Seyr Naser

With High Distinction
Co-operative Education

Onoselulu Edmund Obehi-Arhebun

Jacob Bryan Oswald

With High Distinction

David Lee Pearce

Alexandros Pietrobon*

Cody Michael Power

With Distinction

Ratib Arif Qahhar

Noah Benjamin Roller

With High Distinction
Co-operative Education

Papa Appiah Sakyi

Co-operative Education

Lambert Ibroma Sanipe

Ahmed Ihab Sayed

Mohan Sharma

Colin Shea*

Rajveer Singh

David Song

With Distinction
Co-operative Education

Freddy Sourial

Richard Brendan Sultmanis

Lang Sun

Saraqiyam Syeda

Jiahe Tian

John Khoa Tieu

Grant William Tippet

With Distinction
Co-operative Education

Zelig Udokanma Ukeje

Milan Francois Velickovic

Zhonglin Wang*

Hamas Waqar

With High Distinction
Minor in Computer Science
Co-operative Education

Xiyan Yu

Engineering Physics

André Howell Allard

Kevin Edward Gracequist

Co-operative Education

Noah George Gerry Guy

Co-operative Education

Nhu Tam Hoang

With High Distinction

Harshpreet Kaur Kathuria

Co-operative Education

Surya Nareshan

With High Distinction
Co-operative Education

Noorain Noorani

With High Distinction

Ceremony 11

Thursday, June 15, 12:30 p.m.

Degrees conferred at Spring Convocation are awarded by Senate in February and in June.
Degrees awarded in February are denoted by an asterisk (*)

Convocation Speaker

Larry W. Kostiuk

Dean, Faculty of Engineering and Design



Larry W. Kostiuk began a five-year term as Dean of the Faculty of Engineering and Design on July 1, 2019.

Prior to joining Carleton University, he served in several roles at the University of Alberta, including Chair of the Department of Mechanical Engineering (2002-2012), Associate Vice-President – Research (2015-2018), and Director of Future Energy Systems (2016-2018) – a Canada First Research Excellence Fund program.

Kostiuk's research specializes in chemical reacting flows, combustion (flaring, premixed flame dynamics, and pool fires), pollutant formation and control, thermodynamics, micro- and nano-fluidics (continuum and non-equilibrium molecular dynamic modeling), and energy conversion systems.

He has been a visiting professor at Centre National de la Recherche Scientifique in France, (2014-2015, 1997, 1996, 1995), Carleton University (2014), the Indian Institute of Technology (2013), the University of Cambridge, (2001-2002), and was a special advisor to the Assistant Deputy Minister of the Science and Innovation Division of the Department of Economic Development and Trade.

His research record has resulted in him being named a Fellow of the Canadian Academy of Engineering (2012) and Fellow of the Canadian Society for Mechanical Engineering (2011). His research group also won the Summit Award for Environment Excellence from the Association of Professional Engineers, Geologists, Geophysicists of Alberta (2007).

Order of Proceedings

Ceremony 11

Thursday, June 15, 12:30 p.m.

Chancellor Yaprak Baltacioğlu, LL.B., M.A., presiding

The audience is requested to stand when the Academic Procession arrives and to remain standing for the Elder's greeting and for O Canada. At the conclusion of the ceremony, the audience will wait until the Academic Procession has left before exiting the Fieldhouse.

Processional Music

Opening Ceremony Video

Elder Barbara Dumont-Hill
Algonquin Nation – Kitigan Zibi

O Canada (The audience is invited to sing. Please see Page 2)

Introduction by the Master of Ceremonies

Rafik Goubran, *Ph.D.*
Vice-President (Research and International)

Convocation Address

Larry Kostiuik, Dean, Faculty of Engineering and Design

Conferring of Degrees and Awarding of Medals

Warrant
Elinor Sloan, *Ph.D.*
Marshal of Convocation

Closing Address by the President and Vice-Chancellor

Benoit-Antoine Bacon, *Ph.D.*

Recessional Music

Master of Applied Business Analytics

(Presented by Associate Professor Amir Hakami
Associate Dean, Faculty of Engineering and Design)

Technology Innovation Management

Faith Ojochenemi Achile*
Oreoluwa Daniel Adeyemi
Ehidiamhen Alikah*
Jasmeet Kaur Batra*
Vibhor Bhandari*
Dhara Hemil Bhatt*
Vergel Salvador De Guzman
Azin Ebrahimi*
Hooman Etezadi*
Ghazaleh Farajishabestari
Mahmood Rafi Hassan Fazlullah*
M M Khaled Hasan*
Fahid Hasin*
Hajar Hormozzadehghalati*
Kyrone Conrad Junus
Md. Shahriar Khaled
Priya Lakhanpal*

Huilin Luo
Benjamin Ayukesock Mangeb
Gargi Nayak*
Tanin Nikpoor Arani
Amarachi Sandra Obaji
Feifei Pang*
Weijun Pi
Shohel Rana
Daniel Sebastian
Shervin Shahrzad
Mukama Steve Shamba
Gunjan Singh
Sourav Kumar Singh
Uma Somasundaram
Krupali Digamber Suki
Ranga Manoj Kumar Vanipenda
Sanuja Adithya Wijethunga

Master of Applied Science

(Presented by Associate Professor Amir Hakami
Associate Dean, Faculty of Engineering and Design)

Sustainable Energy

Victoria Usang Asi*
Wind Tunnel Testing to Evaluate Noise
Emissions from a Small Wind Turbine
Nicholas Alec Brunt*
Techno-Economic and Environmental
Performance of Two Distinct State-of-the-
Art Solar-Assisted District Energy System
Topologies

Isabelle Rose Kosteniuk
Modelling and Simulation of a Seasonal,
Solar Driven Sorption Thermal Energy
Storage System in a Cold Climate Residential
Application

Technology Innovation Management

Oluwafeyifunmi Olunuga
Developing a Medical AI Ethics Framework:
Integrating Ethical Principles with Healthcare
Applications Using Topic Modelling

Master of Arts

(Presented by Associate Professor Amir Hakami
Associate Dean, Faculty of Engineering and Design)

Sustainable Energy

Anoop Balachandran
Narjes Bamatitoosi

Ryan James Goldie
Co-operative Education
Serguei Guevorkian*
Natalie Joanne Irwin

Sartaj Javed
Brendan William Kahler
Andreas Fikiri Malango
Mackenzie Jeannette Menard
Co-operative Education
Abdul Awal Mintoo*
Co-operative Education

Lilian Atieno Moon
Fahad Ghaffar Soomro*
Co-operative Education
Emily Jean Stone
Co-operative Education
Hayden Walker
Afreenish Yusirah

Master of Engineering

(Presented by Associate Professor Amir Hakami
Associate Dean, Faculty of Engineering and Design)

Sustainable Energy

Jeffrey Amores
Specialization in Climate Change
Cyprian Sebastian Dmello
Felix Oseghale Elugbaju*
Athmane Felfel*
Co-operative Education
Heidi Hebb
Specialization in Climate Change
Co-operative Education
Aaron Joshua Martin*
Co-operative Education
Mohamed Mohamed Khaja
Specialization in Climate Change
Kaushal Piyushkumar Panchal*
Co-operative Education
Ayush Dilipbhai Patel
Varsha Pilanku
Specialization in Climate Change
Shahin Roozi
Harshil Nitin Shah
Specialization in Climate Change
Naishadh Dharmeshkumar Singapuri
Specialization in Climate Change
Ram Arvind Sundar
Co-operative Education

Technology Innovation Management

Felix Onori Afighi
Vahid Aghania
Areeb Ahsan
Chika Chijioke Alozie*
Anthony Kofi Annan*
Bhargavi Bellamkonda
Yassine Benghazi*
Adrian Caasi Castro
Dhairiyakumar Dineshkumar Chauhan

Olivul Amin Chowdhury
Arief Christoph
Ngo Cheung Owen Fu*
Masoumeh Alsadat Haghighi Mobarhan*
Mohsin Ilyas*
Karim Ismagilov*
Nnadozie Chimaroke Iwunze
Deepti Kachhawa
Vishal Vinayak Kamat
Manpreet Kaur
Swati Siddharam Labba
Chinenye Henrietta Odoh
Samuel Adedoyin Olatunji
Taiwo Oludamilotun Olugbile
Mohit Subhash Pandey*
Niranjith Sanjeevan Perumal
Kimia Pezeshkiyan*
Negar Poursina
Vasunthara Parkavi Rajendran*
Monika Ravi Reddy
Mohammadmatin Salimi
Azadeh Sekhavat*
Keshav Dathathreya Sharma
Ronak Shirooei*
Mona Soori*
Mauricio Tovar Contreras
Akshansh Tyagi
Soumya Unhale*
Hafize Dilara Uz Beydogan
Parija Anil Waghule
Mohammadreza Yousefi
Paniz Zavari*
Khushveer Kaur
Narveer Singh*

Master of Entrepreneurship

(Presented by Associate Professor Amir Hakami
Associate Dean, Faculty of Engineering and Design)

Technology Innovation Management

Rozita Ababaei
Enoh Samuel Akpan
Adeoluwa Benjamin Bukola*
Zahra Dehghan Kemareji
Samuel Jerryonold Nii Ayitey Dinsey
Fariba Esmaeilzadeh Rostami
Emmanuel O Famakinwa
Afsoun Fateh Saghez*
Narges Garoosi
Payam Ghanavati
Mozhdeh Karimi*

Navyashree Krishnareddy*
Phoebe Chinyere Maduabuchi*
Maluki Kihuha Mbese
Matin Moghaddam
Fateme Nasiri*
Shaquille Julien Obomeghie*
Blondie Amy Okpuzor*
Omowaiye Adufe Popoola
Shaikh Saif Al Rashid*
Faisal Saeed*
Milan Sanghani
Ramin Zia Shakeri*

Bachelor of Engineering

(Presented by Professor Yvan Labiche
Chair, Department of Systems & Computer Engineering)

Communications

Mohammad Bassam Abou Shaaban*
Jad Choufani*
Minor in Business for Engineers
Olamilekan Abdulrazak Elegbede*
Han Gao
Ogheneruona Christian Osharode*
Curtis Edward Winstanley
Ahmed Youssef Youssef*

Computer Systems

Laith Said Abdelrazeq
With Distinction
Co-operative Education
Khusmeet Singh Ahluwalia
Alina Ahmad
Alfred Akinkoye
Ousama Al Chami
Samy Issa Aljamal
Wilson Rodynaoud Rodynaoud Kangni Amoussougbo
Philip Alexander Baird
With Distinction
Co-operative Education
Hovish Balgobin
With Distinction
Co-operative Education

Stephen James Donald Batterton
Co-operative Education

Kevin James Belanger*
Jacob David Charpentier
With High Distinction
Co-operative Education

Meia Makenzie Copeland
Minor in Physics
Co-operative Education

Andrew Thomas Cowan*
With Distinction

Abdelrahman Elsayed Bekhit Mohamed Darwish

Taiye Hannah Olorunyomi Davies

Kenny Deng

Nourjehan Osama Faris

Nicholas Steven Fejes

Mingqi Feng*

Rodrigo Fierro
With High Distinction
Co-operative Education

Ryan Bruce Lachlan Fife
With High Distinction
Co-operative Education

Cristian Andres Figueroa*
Co-operative Education

Devon William Fruck
With Distinction
Co-operative Education

Dominique Giguère Samson*

Nafis Ul Haque*

Mahmud Azizul Hasan
Co-operative Education

Jia Chen Huang
Co-operative Education

Asser Hesham Ibrahim

Tochukwu Chukwuemeka Iroakazi

Kevin Abraham Johnson

Conor Terrance Johnson Martin
Co-operative Education

Akaash Nand Kapoor
With High Distinction
Co-operative Education

Graham James Campbell Kendall
With Distinction
Co-operative Education

Thomas Joseph Knechtel
With Distinction

Leenesh Kumar

Juan Esteban Leal Valdivieso

Eric Alexander Leslie

Linpu Liu

Yunzhou Liu

Bailey Benjamin Lyster

Muhammad Yunas Magsi

Tyler Git Wei Mak
With Distinction

Malcolm Drake McGillivray*

Nathan Alexander Mezzomo
With Distinction

Nicholas James Milani*
Co-operative Education

Lyam Michel Milbury*

Maged Mohammed
With High Distinction
Co-operative Education

Ahmad Mozan
Co-operative Education

Colton Geoffrey North*

Eline-Elorm Awo Nuviadenu
With Distinction

Julian David Obando Velez
With High Distinction
Co-operative Education

Paul Ucheojor Okenne
With High Distinction
Co-operative Education

Chidubem Israel Okonkwo

Evan Pelletier
With High Distinction
Co-operative Education

Zachary Leonard Dale Porter*
Co-operative Education

Akshith Ravishankar
With High Distinction

Gabriele Sarwar*

Deji Barry Sayomi

Ahmet Seyidoglu
With High Distinction
Co-operative Education

Shyam Singh

Jake Alton Tanner Surret*
With Distinction
Co-operative Education

Saianish Tankala
With Distinction
Co-operative Education

Asad Numan Waheed
With Distinction
Co-operative Education

ShuJian Wang
With Distinction
Co-operative Education

Matthew Gavin Wesley-James*

Justin Christopher Whalley
With Distinction
Co-operative Education

Hui Sum Jaime Yue
With Distinction

Boshen Zhang
With Distinction

Software

Sarah Abdallah*

Tony Marco Abouzeidan
With High Distinction
Co-operative Education

Ahmad A. A. Abuoudeh

John Ayomide Afolayan

Jameel Alidina

Ali Alvi
With Distinction
Co-operative Education

Sam Al-Zoubi
With Distinction

Marc Robert Angers*
Co-operative Education

Joseph Eghiegba Anyia

John Benjamin Baggs
With High Distinction

Joshua Paul Blondin
With High Distinction
Co-operative Education

Ryan Joseph Campbell
With High Distinction
Co-operative Education

Eric Michael Canam

Ethan Graham Chase
Co-operative Education

Callum Dermot William Coughlan

Colin Peter Crasta

Zakaria Yacine Damou
With Distinction
Co-operative Education

Jamil Dergham

Guanqun Dong
With High Distinction
Co-operative Education

Anthony Patrick Joseph Louis Dooley
With High Distinction
Co-operative Education

Frank Nicholas Dow

Joshua Robert Ken Downing*
With Distinction
Co-operative Education

Kareem El-Hajjar
With Distinction

Ahmad El-Sammak
With High Distinction
Co-operative Education

Ali Ahmad Fahd
With Distinction
Co-operative Education

Kevin Daniel Fox
With Distinction

Muhammad Furqan
With High Distinction

Robell W. Michael Gabriel

Joshua Biagio Gatto

Jonah Sean Gaudet
With High Distinction
Co-operative Education

Harjap Singh Gill
With High Distinction
Co-operative Education

Kaue Gomes E Sousa De Oliveira

David Peter Haighton
With High Distinction
Co-operative Education

Gang Han*

Jiatong Han
Co-operative Education

Areeb Ul Haq
Co-operative Education

Omar Hashmi

Dani Hashweh*
Co-operative Education

Golan Hassin

James William Edson Horner*
With High Distinction
Co-operative Education

Ethan Brian Houlahan

Yasin Ali Jaamac*

Yusuf Ali Jaamac*

Sarah Louay Jaber
With High Distinction
Co-operative Education

Hassan Jallad
With High Distinction
Co-operative Education

Dharshatharan Jayatharan Aronan
With Distinction
Co-operative Education

Alec Liam Jeffery

Visakan Kirubakaran

Dimitry Koutchine*

Phuc Thien La
With Distinction
Co-operative Education

Imran Aleem Latif

Isaac Lok Chung Leung

Tyler James Leung

Shaopeng Liu
With Distinction
Co-operative Education

Thomas Evan Stratton Lloyd
With Distinction
Co-operative Education

Emmitt Kale Lunning

Thomas Gregory Lumsden
With High Distinction

Jonathan Edward Mack
With High Distinction
Co-operative Education

Anthony Maevski-Popov

Aayush Arvind Mallya

Braxton Quinn Hilliam Martin

Gilles Myny
With Distinction

Aashna Narang*
With High Distinction

Ryan Nguyen
Co-operative Education

Favour Mavoughenero Olotu
With Distinction
Co-operative Education

Tejash K. Patel
With High Distinction
Co-operative Education

Nikolas Keegan Paterson

Steven Van Pham
With High Distinction

Sabin Plaiasu
Co-operative Education

Santhosh Bradley Pradeepan
With High Distinction
Co-operative Education

Zirui Qiao
With High Distinction

Kevin Huy Dinh Quach
With High Distinction

Vijay Ramalingom
With Distinction
Co-operative Education

Benjamin Robert Ransom

Sebastian Eric Ross

Thomas Slater Ross
With Distinction
Co-operative Education

Ishanov Sahni

Albara'a Salem

Raj Sandhu
With Distinction
Co-operative Education

Jacob Bortolin Schmidt

David Henry Sciola
With High Distinction
Co-operative Education

Nicholas Adam Roman Sendyk
With High Distinction

Weihong Shen

Sara Shikhhassan
With Distinction

Matthew A. Shirazi

Matthew King Wah Siu
With High Distinction
Co-operative Education

Shashaank Srivastava
With High Distinction

Ashwin Parekh Stoparczyk

Peter Michael Tanyous
With Distinction
Co-operative Education

Nazifa Tanzim*
Co-operative Education

William Tran
With High Distinction
Co-operative Education

Nicolas Alexandre Tuttle
With High Distinction
Co-operative Education

Aleksandar Veselinovic
With High Distinction
Co-operative Education

Khanh Vu

MacKenzie Thomas Wallace
Co-operative Education

Millan Yifeng Wang
With High Distinction
Co-operative Education

YouHeng Zhou
With Distinction

Sustainable and Renewable Energy

Nowayer S O F Sh Alrashidi
With Distinction

Campbell Barker
Co-operative Education

Alexander Denison Henshaw Beattie

Michael Nicola Bellah*

Kazamier Karl Bieleckie*

Jacob Gordon Shibley Dearborn

Meagan Joie Duff*

Stephen Squire Eckstein
With High Distinction
Co-operative Education

Ahmed Adeeb El Madhoun

Kassandra Fiona Feeny

Drew Robert Hamilton
With High Distinction
Co-operative Education

Ahmed Hassan

Joshua Xavier Erwin Jones

Sora Nasir Kenea

Luka Khorbaladze
With Distinction
Co-operative Education

Tyler Corry Kollman*

Richard Leo Kostuch
Co-operative Education

Christopher Min-Keat Lee
With High Distinction
Co-operative Education

Vanessa Alicia Lewis*

Cristen Ester Elizabeth Merlo
With Distinction
Co-operative Education

Mark Maged Morgan

Olivia Lillian Anne O'Dale
With Distinction

Abdulrahman Magdy Osman

Mia Danielle Payne

With Distinction

Co-operative Education

Denisse Andrea Perez Fernandez

With High Distinction

Co-operative Education

Yakov Petrukhin

With Distinction

Co-operative Education

Isaac Stephen Rudnicki

With High Distinction

Co-operative Education

Caleb Stairs

With Distinction

Marcus Szalay

Natalia Valdes Blanco

Junhao Zhang

With Distinction

Ceremony 12

Thursday, June 15, 3:30 p.m.

Degrees conferred at Spring Convocation are awarded by Senate in February and in June.
Degrees awarded in February are denoted by an asterisk (*)

Convocation Speaker

Larry W. Kostiuk

Dean, Faculty of Engineering and Design



Larry W. Kostiuk began a five-year term as Dean of the Faculty of Engineering and Design on July 1, 2019.

Prior to joining Carleton University, he served in several roles at the University of Alberta, including Chair of the Department of Mechanical Engineering (2002-2012), Associate Vice-President – Research (2015-2018), and Director of Future Energy Systems (2016-2018) – a Canada First Research Excellence Fund program.

Kostiuk's research specializes in chemical reacting flows, combustion (flaring, premixed flame dynamics, and pool fires), pollutant formation and control, thermodynamics, micro- and nano-fluidics (continuum and non-equilibrium molecular dynamic modeling), and energy conversion systems.

He has been a visiting professor at Centre National de la Recherche Scientifique in France, (2014-2015, 1997, 1996, 1995), Carleton University (2014), the Indian Institute of Technology (2013), the University of Cambridge, (2001-2002), and was a special advisor to the Assistant Deputy Minister of the Science and Innovation Division of the Department of Economic Development and Trade.

His research record has resulted in him being named a Fellow of the Canadian Academy of Engineering (2012) and Fellow of the Canadian Society for Mechanical Engineering (2011). His research group also won the Summit Award for Environment Excellence from the Association of Professional Engineers, Geologists, Geophysicists of Alberta (2007).

Order of Proceedings

Ceremony 12

Thursday, June 15, 3:30 p.m.

Chancellor Yaprak Baltacioğlu, LL.B., M.A., presiding

The audience is requested to stand when the Academic Procession arrives and to remain standing for the Elder's greeting and for O Canada. At the conclusion of the ceremony, the audience will wait until the Academic Procession has left before exiting the Fieldhouse.

Processional Music

Opening Ceremony Video

Elder Barbara Dumont-Hill
Algonquin Nation – Kitigan Zibi

O Canada (The audience is invited to sing. Please see Page 2)

Introduction by the Master of Ceremonies

Rafik Goubran, *Ph.D.*
Vice-President (Research and International)

Convocation Address

Larry Kostiuik, Dean, Faculty of Engineering and Design

Conferring of Degrees and Awarding of Medals

Warrant
Elinor Sloan, *Ph.D.*
Marshal of Convocation

Closing Address by the President and Vice-Chancellor

Benoit-Antoine Bacon, *Ph.D.*

Recessional Music

Doctor of Philosophy

(Presented by Associate Professor Amir Hakami
Associate Dean, Faculty of Engineering and Design)

Civil Engineering

Fayez Alamry*

Examining Driver Behaviour at Freeway Ramp
Terminals Based on Trajectory Data Collected
Using Unmanned Aerial Vehicles and Video
Image Processing
Supervisor: Y. Hassan

Premnath Selvarajah*

Anisotropy and Non-coaxial Behaviour of
Sand Along Different Strain Paths
*Supervisors: S. Sivathayalan and M.
Pouragha*

Environmental Engineering

Eskandar Poorasgari*

Effects of Anaerobic and Aerobic Digestion
at Mesophilic and Thermophilic Temperatures
on the Quantity of Carbapenem Resistance
Genes in Wastewater Sludge
Supervisor: B. Ormeci

Master of Applied Science

(Presented by Associate Professor Amir Hakami
Associate Dean, Faculty of Engineering and Design)

Building Engineering

Sara Azimi*

Comprehensive Simulation-based Workflow to
Assess the Performance of Occupancy-based
Controls and Operations in Office Buildings
Concentration in Building Performance

Kayle James Campbell-Templeman

A Methodology for Rapid Energy Modelling
and Maintenance Request Data Informed
Building Retrofit Opportunity Analysis
Concentration in Building Performance

Sharane Simon*

Quantitative Assessment of Teleworking on
Energy Consumption and Greenhouse Gas
(GHG) Emissions
Concentration in Building Performance

Civil Engineering

Milad Abolhassani Hastiani*

Safety Evaluation of Roundabouts and Speed
Cameras Within the City of Ottawa

Alyssa Therese Bernier

The Impact of Historical Climate Change
Induced Heat Waves on the Predicted
Performance of Canadian Flexible Pavements

Barbara Boakyewah*

A Numerical Study of the Impact of Make-up
Air Velocity on the Smoke Conditions in an
Atrium

Benjamin Hamilton

Testing the Applicability of Older Wood Taken
from Fire-Damaged Buildings

Mitchell David Lawlor

Evaluating Performance of Alternative Deicers
for Winter Road Maintenance: Deicing and
Corrosivity

Asma Hadi Omar

Anomaly Detection in the Vibration of Wind
Turbine Blades using Gaussian Process
Regression

Sorousha Saffarzadeh Parizi*

Safety Evaluation of Red-Light Cameras and
Dynamic Speed Display Signs Within the City
of Ottawa

Jay Parker Wills

A Numerical Study of the Effect of Thin Clay
Layers on the Response of Sand in Undrained
Simple Shear

Environmental Engineering

May Alherek*

Impact of Low-levels of Silver, Zinc and
Copper Nanoparticles on Bacterial Removal
and Potential Synergy for Point-of-use Water
Treatment Solutions

Gabriela Carolina Jimenez Pabon

Monitoring SARS-CoV-2 in Municipal
Wastewater and Correlation of Results with
Covid-19 Cases from Five Municipalities in
Ontario, Canada

Sharli Himatbhai Jodhani

Acidogenic Fermentation of Food Waste for
Short-Chain Fatty Acids (SCFAs) Production
- Effect of Inoculum Type and Heat Pre-
Treatment, and pH Under Room Temperature

Daanish Singh

Investigation of Ceramic Ultrafiltration
Membrane Cleaning Mechanisms Using Novel
Surfactant-Based Cleaning Solutions

Mantake Singh

Development of a Novel Competitive
Adsorption Model and a Contaminant
Transport Model to Predict Competitive
Adsorption of PFAS in a CAC Barrier

Xuexin Xia*

Simulating 3D Tailings Dam Breach With
Thixotropic Bifurcation Rheology using the
Material Point Method

Master of Engineering

(Presented by Associate Professor Amir Hakami
Associate Dean, Faculty of Engineering and Design)

Civil**Rohith Ammaiyappan Palaniselvam*****Hetvi Rameshbhai Anjara*****Nirusan Arunthavanathan****Aaron Joel Benjamin*****Meghaj Sushilkumar Bhandare****Gopika Biju*****Prithiv Chandramohan****Karan Girish Chauhan*****Tushar Jagdishbhai Chheta****Tarun Kantibhai Dhaduk****Thahaseen Banu Fayaz Ahamed*****Akash Rohidas Gaikwad****Nemil Vasantkumar Gandhi*****Priyanka Vivek Gangapurkar****Jitesh Bakuleshkumar Joshi*****Arun Kumar Katukuri****Gurkamal Kaur****Madankumar Kuchipudi****Nikhil Bhavani Lakheda*****Bashar Atikbhai Laliwala****Amal Madhu****Rowan Alexander Miller****Parth Navrangbhai Mistry*****Akash Dilipkumar Modi*****Drishiti Nileshkumar Modi*****Vivekkumar Rajeshkumar Modi****Faraz Mohammed*****Bhuvan Mysore Amarnath****Sai Sumanth Neelamsetty****Prakash Dalpatbhai Nimavath****Jayraj Panchal*****Jay Anilkumar Patel*****Kush Dharmeshkumar Patel*****Meet Mahendrabhai Patel*****Miti Shailesh Patel*****Monil Kiritbhai Patel****Rakshith Raghu****Kumuda Rajashekharaiyah****Saleh Ramadan****Vishvaa Ramaiyah Subramanian*****Kajal Sareen****Harsh Naranbhai Satani****Kirti Singh*****Rajendra Singh*****Parth Nitinbhai Suthar*****Jaiminkumar Pravinsinh Thakor****Srivignesh Vasantharaj*****Aswathy Vattathara Surendran****Stephen Kenneth Vickers*****Dinesh Kumar Vijayakumar*****Saleh Mohammad Ahmedhussain Vohra****Bhamalekshmi V S****Mohammed Talha*****Environmental****Faiaz Ahmed****Sudharsan Balaji*****Maria Zita Catherine Gaspar****Akanksha Prakash Manglani****Aarzo Sudhirkumar Patel****Purvi Bipinkumar Patel****Tatyana Roumie****Hiral Dilipkumar Suthar****Tianwen Xia****Atif Mehmood****Roshin Mathew Sam**

Bachelor of Engineering

(Presented by Professor Mario Santana Quintero,
Assistant Professor Christian Viau and Dr. Shoeleh Shams
Department of Civil and Environmental Engineering)

Architectural Conservation and Sustainability

Malak Abdou
With Distinction

Ali Faez Al-Moala

Zachary Thomas Beltrame

Aidan Noah Bethell
With Distinction
Co-operative Education

Isabelle Laura Bouchard

Jazmine Joelle Cant
With Distinction

Nolan Michael Duff
With High Distinction

Jeremy Dalton Ellis*

Yehyun Lee Han

Ayah Hassan
With High Distinction
Co-operative Education

Matthew Steven Holmes
With Distinction
Co-operative Education

Makaila Jones
With High Distinction

George Martin Manadan

Eric Keith Miner*

Davis Moore
With Distinction

Tyler Denham Muylaert*

Emad Antoine Obaid*

Ayomide Oluwasanunfunmi Oyefeso

Elizabeth Paikoff
With High Distinction
Co-operative Education

Sophia Louise Paterson

Zhuo Jie Ruan

Isaac George Sanderson
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Corinne Emily Schonewille

Kala Sewraj
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Yizhi Shen

Angela Diane Soward*

Braeden Robert Thom Staples
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Megan Suchon

Dakota Wehbe

Katherine Elizabeth Wishewan
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Elise Marie Wunder

Civil

Tamara Al-Lahham*
Minor in Business for Engineers

Zeina Al Moumen

Jaafar Al Sendi

Yousef Al Wahami*

Hunter Bagby*

Andrew Joseph Baker

Jeremey Wilson Bateman

William Ronald Beaton

Buster Mansell Hagen Biggs
With High Distinction
Co-operative Education

Morgan Calwell*
With High Distinction

David Caon

Carson Domenico Cappuccitti

John David Clarabut
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Charles-Maxwell Craston

Trevor Joseph Czorny

Christopher Michael Da Silva

Thomas Flesch Da Silva

Paige Denis

Brenden James Devine

Noah Patrick Dionne*

Keiran Malcolm Doak
Co-operative Education

William Blake Dodds
Minor in Business for Engineers

Aidan Joseph Deluzio Doiron

Hani Samer El khairy
With Distinction
Co-operative Education

Oluwatimilehin Fifo
Patrick Michael Glenn Fitzgerald*
Antonio Remi Gareau
 With High Distinction
 Co-operative Education
Zein Ghazal
 Co-operative Education
Perry Dhananjay Albert Godse
 Minor in Geography
Peter Ephraim Griesbach
Tingyan Gu
David Russell Gunner
Christen Gyampem*
Matiejus Kestutis Halpin
Tariq Nader Hamdan*
Joseph Richard Hough
Samuel Reese Hurd
 With High Distinction
William Luke Jackson
Muneeb Javed
Cooper William Jones*
 Co-operative Education
Kathleen Grace Keenan*
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Maryam Khalid*
Ahmed Omar Khalil*
Luke Minsu Kim*
Jonas Logan Labonte
 With High Distinction
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Kelly Darrell Stavros Lowry
 With High Distinction
Osama Salah Ayed Mahmoud*
Mikhail Mapp
 Co-operative Education
Jonathan May
Alexander Nathan McAuley
 Co-operative Education
John Quinn Meek
 Co-operative Education
Sakhi Sanjay Mittal
 Minor in Women's and Gender Studies
Ian Moturi Mokaya
 With Distinction
 Co-operative Education
Noah P. Moreau
Sarah Denisse Muller Canelon*
Maryam Ahmed F. Nabih
 With High Distinction
Ryan Noah Nishimura*

Gregor Cameron Nordstrum
 With High Distinction
Ryan Christopher Nussey
 With Distinction
Susan Elizabeth Ould-Brahim
 With High Distinction
Anneka Joy Petersen
Stephanie Marie Pitoulis
Ayeisha Rahman
Teri Anne Reid
Oliver Francis Rice
Eli Gabriel Romanchik
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Adam Thomas-James Runciman
Mohammad Alem Safar Ali
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Benjamin Tyler Sale
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Brigitte Elizabeth Sauvé
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Ethan Jason William Schiller*
Delsin Clifford Smith
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Mamnun Mustaorid Swapnil*
Alexander Abraham Tachdjian*
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Visakan Theiventhran
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Justin Trinh
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Oghenerugba Ugboduma
Matthew James Veitch
Tianyao Wang
Zhengyu Wang*
Ziyi Wang
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Sebastian Wat
Xintao Ye*
Kabilan Yogasekaram
Steven John Zamora*
Giacomo Sebastian Zanabria Rodriguez
 With Distinction
Yiren Zhang
Wenda Zhou
Haotian Zhuo

Environmental

Mohammad F. A. S. H. Alraish

With Distinction

Mudar Malaz Ayoubi

Ava Theresa Bebbington

With High Distinction

Co-operative Education

Mackenzie Beisheim

With Distinction

Alexander Macmillan Bell*

Doha Chaqchaq*

Serena Mercedes Cheung*

Natacha Demers*

Razan Ghadieh

With High Distinction

Co-operative Education

Ryan Matthew Gillan

With Distinction

Jeremy Douglas Gollain

Carsen James Henze

Brosnan Kennedy Hinsche

Haruki Isomata

Jacob Forrest Kawalec

Tristan Cole Seltitz Kennaley

Emily Suzanne Killeen

Skylar Steven Kraus*

Eric Jean Lavergne*

Tanner Matthew Lehto

With High Distinction

Rani Madi

Nathan Michael Martin

William Bernard McIntyre*

Karlo William Milinkovic

Rehoboth Kiluba Mubedi

Kyle Richard Lee Neuman

Fatima Mahmoud Obaid

With High Distinction

Aidan Alexander Patrick

With Distinction

Co-operative Education

Rowan Reilly Ross*

Manav Dimplekumar Shah

With High Distinction

Co-operative Education

Kaitlyn Marie Shaw*

Laura Spalding

With High Distinction

Co-operative Education

Trevor Patrick James Szczucki

David Charles Szonyi

With High Distinction

Co-operative Education

Alexa Constance Trenholm

With High Distinction

Hannah Sachiko Villeneuve

With High Distinction

Co-operative Education

Mishael Tamunotonye Wilcox

Tyler Sean Hattori Wilson

Alumni Association Welcome



Congratulations on obtaining your degree from Carleton University, persevering through any and all challenges faced. Welcome to the Carleton University Alumni Association (CUAA).

With your remarkable achievement comes a membership in a thriving club – a dynamic organization of more than 177,000 people living and working around the world who all share a proud connection with this university. This network can help you realize your dreams, open doors and connect you to your alma mater.

This is a day for celebration, but it also represents an opportunity for reflection. As you savour your accomplishment, take a moment to look back on your years at Carleton. Remember the ideas that challenged you, the professors who inspired you, and the lifelong friendships you have made. You will treasure these wonderful memories for the rest of your life.

On behalf of your Alumni Association, congratulations on reaching this milestone. Welcome to the CUAA – we're here to help you as you embark on a happy and successful future.

Mat Main, *B.Eng*

President, Carleton University Alumni Association



Ottawa, Ontario, Canada



100%