



**UNIVERSITY OF TORONTO**  
**FACULTY OF APPLIED SCIENCE & ENGINEERING**

**Council of the Faculty of Applied Science & Engineering**  
**Minutes of the Meeting of April 27, 2022**

---

**PRESENT:** Javad Mostaghimi (Speaker), Chris Yip (Dean), Ravi Adve, Dionne Aleman, Grant Allen, Cristina Amon, Susan Andrews, Julie Audet, Tim Barfoot, Jason Bazylak, Timothy Bender, Evan Bentz, Laura Berneaga, Archit Bhargava, Raymond Bhushan, Shlomo Bibas, Chris Bouwmeester, Eric Bryce, Markus Bussmann, Warren Chan, Heba Chehade, Alan Chong, Will Cluett, Shai Cohen, Sinisa Colic, Fiona Coll, Michael Collins, Tom Coyle, Daire Crawford, Phil Cuvin, James Davis, Ali Dolatabadi, Stark Draper, Mihai Duduta, Natalie Enright Jerger, Saima Fancy, Jennifer Farmer, Ramin Farnood, Celeste Francis Esteves, Diane Giang, Aidan Grenville, Angela Henshilwood, Glenn Hibbard, Muktar Homam, Charles Jia, Omar Khan, Dawn Kilkenny, Donald Kirk, Deepa Kundur, Jonguk (Justin) Lee, Keryn Lian, Heather MacLean, Don MacMillan, Elham Marzi, Paul Milgram, Emily Moore, Shivani Nathoo, Jun Nogami, Jeffrey Packer, Khoman Phang, Milos Popovic, Scott Ramsay, Mark Rittinger, Jon Rocheleau, Matthew Roorda, Sanjana Seerala, Peter Serles, Shamim Sheikh, Lily Shu, Brent Sleep, Marisa Sterling, Micah Stickel, Ken Tallman, Zeb Tate, Hamid Timorabadi, Marianne Touchie, Tony Vanvari, Chirag Variawa, Elizabeth Whitmell, Lydia Wilkinson, Bernard Wong, Ning Yan, Yu Zou

**GUESTS:** Irina Belaya, Helen Bright, Chris Brown, Sharon Brown, Melanie Carrington, Leanne Dawkins, Sonia De Buglio, Jennifer Fabro, Carolyn Farrell, Roger Francis, Eric Fysh, Leslie Grife, Christina Heidorn, Cheryl Lee, Crystal Liu, Jess MacInnis, Brenda McCabe, Sindhu Menon, Marit Mitchell, Don Newton, Maria Paz Castillo, Dan Pettigrew, Zeeshan Rayees, Cindy Rottmann, Hallie Siegel, Frank Scornaienchi, Taufik Valiante, Allison Van Beek, Geoff Wichert, Nefeteria Wickham

**SECRETARIAT:** Nadia Gulezko (Event Support), Anna Limanni (Technical Support), Alex Schroen (Moderator), Caroline Ziegler (Secretary)

**1. Speaker's Welcome**

Speaker Javad Mostaghimi called the fourth and final Faculty Council meeting of 2021-2022 to order at 12:10 pm. He welcomed members and guests, acknowledged the University's use of traditional land and reviewed protocols for the hybrid meeting, which was being held simultaneously in GB202 and via Zoom. There were no questions.

**2. Approval of Agenda**

The agenda and reports were distributed on April 20, 2022. Proposals to create a Collaborative Specialization in Neuromodulation (Report 3616 Revised) and a Collaborative Specialization in Robotics (Report 3717 Revised) were distributed on April 22, 2022.

Since these proposals were distributed on such short notice, the following motion was duly moved, seconded and carried –

THAT Council consider Reports 3716 Revised and 3717 Revised at its April 27, 2022 meeting.

There was no discussion regarding the following motion, which was duly moved, seconded and carried –

THAT the agenda be approved.

### **3. Adoption of the Minutes of Previous Meetings**

There was no discussion regarding the following motions, which were duly moved, seconded and carried –

THAT the minutes of the December 16, 2021 Faculty Council meeting be approved.

THAT the minutes of the February 18, 2022 Faculty Council meeting be approved.

### **4. Memorial Tribute to Professor Emeritus Earl Burke**

Deepa Kundur, Chair of The Edward S. Rogers Sr. Department of Electrical & Computer Engineering, read the following memorial tribute in honour of Professor Emeritus Earl Burke, which was prepared by Professor Safwat Zaky in consultation with Professor Reza Iravani.

Be it resolved –

THAT the Council of the Faculty of Applied Science & Engineering record with deep regret the death on March 28, 2022 of Earl Burke.

Professor Emeritus Earl Burke, a respected member of ECE's Power Group, passed away on March 28, 2022 at the age of 96. Earl earned a degree in electrical engineering from Nova Scotia Technical College in Halifax, after which he joined General Electric in Toronto. In 1951, he joined what was then the Department of Electrical Engineering at the University of Toronto as a Lecturer. After completing his MASc degree, he was appointed to Assistant Professor, eventually achieving the rank of Full Professor. He retired in 1986 and was appointed Professor Emeritus.

Professor Burke served as Chair of the Faculty of Applied Science & Engineering's First Year Studies for a number of years and was a well-liked lecturer. His expertise in research and teaching was in the area of electromagnetics as applied to electrical power systems. In 1979, while on a one-year sabbatical leave, supported by a National Research Council Senior Industrial Fellowship grant, he joined Trench, a company for which he had been providing

consulting services for about five years. There, he led the development of a new product line of power conditioning coils for the electrical power utilities. He continued to provide consulting services to Trench for 25 years.

Earl loved to build things, which he did much of during his retirement, but his main hobby was gardening. He convinced a group of neighbours with adjacent properties to let him plant their backyards, giving him access to a long stretch of land. With the help of a friend, he proceeded to create a masterpiece, which he maintained for many years. He also travelled widely and served as a volunteer in the Palliative Care Unit at St. Michael's Hospital for 25 years.

He is predeceased by his parents and first wife, Anne Adele Stortz. Earl is survived by his wife, Geraldine O'Meara, as well as his sons Patrick, David and Stephen and their families.

Be it further resolved –

THAT this tribute to Earl Burke be inscribed in the minutes of this Council meeting, and that copies be sent to his family as an expression of the respect and gratitude of the members of this Council.

The Speaker assumed concurrence with these resolutions and Council observed one minute of silence in honour of Professor Emeritus Earl Burke.

## **5. Report of the Dean**

Dean Chris Yip welcomed all to the Council meeting and provided the following remarks.

### **(a) Back to Campus**

Throughout the pandemic, our Engineering community has worked diligently to maintain a safe and supportive environment. Thanks to these efforts, we successfully returned to on-site learning and work in the Winter academic term.

The last several weeks have been the busiest of the year, and we are thrilled to have our final Council meeting as hybrid.

Although U of T was preparing to pause several COVID-related requirements on May 1, 2022 (health screening, indoor masking, vaccination), the Provost's email of April 26 stated that in light of the recent provincial trends, the university will extend its requirement to wear masks in certain settings until June 30, 2022.

There is a complex mix of stressful factors at play right now. The end of the term is a demanding time, and this year we're also still navigating the pandemic and grappling with global conflict, uncertainty and instability. Supports and resources are available 24/7 to all students, staff and faculty.

## **(b) Convocation**

The Office of Convocation will welcome our graduating students in-person at the Spring Convocation. Engineering will have three convocation ceremonies on June 16: our morning ceremony will include ECE and MSE graduates; our afternoon ceremony will be for ChemE, CivMin, and EngSci students; and the evening ceremony will be for MIE, UTIAS and BME graduates. There will be a convocation ceremony later in the year for anyone who is unable to attend the June ceremonies.

## **(c) Engineering Excellence Awards**

Members of our Engineering faculty and staff have been honoured for their outstanding contributions to the Faculty with teaching, research and administrative staff awards. These awards recognize exceptional faculty and staff members for their leadership, citizenship, innovation and contributions to the Faculty's teaching, service and research missions.

Administrative staff awards were given to Jen Hsu, Manager of External Relations, ChemE (Barbara McCann Quality of Student Experience Award for Frontline Staff); Aliz Karami, Celeste Francis Esteves and Oscar Del Rio, MIE (Innovation Award); Dan Grozea, Engineering Technologist, MSE (Agnes Kaneko Citizenship Award); Jessica MacInnes, External Relations Manager, ECE (Harpreet Dhariwal Emerging Leader Award); and Brian Coates, Chief Financial Officer (Catherine Gagne Sustained Excellence in Leadership Award). Brian will be retiring on April 30, 2022.

Teaching award winners include Crystal Liu, MSE (Teaching Assistant Award); Marianne Touchie, CivMin, MIE (Early Career Teaching Award); Stephen Brown, ECE (Faculty Teaching Award); and Grant Allen, ChemE (Sustained Excellence in Teaching Award).

Research awards were given to Andreas Moshovos, ECE (Safwat Zaky Research Leader Award); Scott Sanner, MIE (McCharles Prize for Distinction in Early Career Research); and Marianne Touchie, CivMin, MIE (McCharles Prize for Distinction in Early Career Research).

More information about the recipients is available on the Faculty website.

## **(d) Engineering Society Leadership Transition**

The 2022-2023 Engineering Society leadership team was announced and thanked for committing their time and skills to the benefit of our Engineering students. They are: Aiden Grenville, President; Irteza Ahmed, Vice-President, Finance; Inho Kim, Vice-President, Communications; David Song, Vice-President, Academic; and Noah Guerin, Vice-President, Student Life.

The 2021-2022 leadership team of Jacqueline Fleisig, President; Valerie Ajayi, Vice-President, Finance; Brohath Amrithraj, Vice-President, Communications; Archit Bhargava, Vice-President, Academic; and Karman Lochab, Vice-President, Student Life, was also acknowledged for the tremendous job they have done this last year under unprecedented conditions and unpredictability.

The Speaker thanked the Dean for his report. During discussions, the Dean commented on how the Faculty has successfully navigated the pandemic. We were the first Faculty to return to in-person learning, starting with CivMin's Gull Lake Survey Camp, and our classes, PEY and exams have been going well.

## **6. Amending the Constitution and Bylaws of the Faculty of Applied Science & Engineering**

Markus Bussmann, Chair of the Department of Mechanical & Industrial Engineering, acted as Council Speaker while Javad Mostaghimi presented Report 3713. This report was endorsed by the Executive Committee of Council at its February 1, 2022 meeting and the two motions therein are recommended for Council's approval as special motions, each requiring a two-thirds majority of members present and voting to carry.

Report 3713 describes proposed changes to the Faculty's Constitution and Bylaws to allow an additional ex officio seat on Council for the chair of the Graduate Engineering Council of Students. This will align with the structure of undergraduate student representation on Council, where the Engineering Society President and Vice-President, Academic are ex officio members.

At the conclusion of the presentation, the first special motion was moved and seconded –

THAT the Constitution and Bylaws of the Faculty of Applied Science & Engineering be revised to add the chair of the Graduate Engineering Council of Students as an ex officio member of Faculty Council, as described in Report 3713, effective in the 2022-2023 academic year.

There was no discussion and the motion was carried.

Professor Mostaghimi then discussed the second motion in Report 3713, a minor revision to the Constitution to correctly state the number of undergraduate student members of Council.

At the conclusion of the presentation, the second special motion was moved and seconded –

THAT the Constitution of the Faculty of Applied Science & Engineering be revised to change the number of undergraduate student representatives on Council from 38 to 40.

There was no discussion and the motion was carried.

Professor Mostaghimi thanked Professor Bussmann and reassumed role of Council Speaker.

The following items were endorsed by the Executive Committee of Council at its April 6, 2022 meeting and are recommended for Council's approval as regular motions, requiring a simple majority of members present and voting to carry.

## **7. Teaching Effectiveness Guidelines**

Ken Tallman, Chair of the Teaching Methods & Resources Committee, presented Report 3705 Revised, the *Faculty of Applied Science & Engineering Guidelines for the Assessment of Effectiveness of Teaching in Tenure, Continuing Status and Promotion Decisions*.

The guidelines are important to faculty and overdue. They are intended for department chairs, institute and division directors, and review committees who assess teaching effectiveness in tenure, continuing status, and promotion reviews, and for all Engineering instructors seeking advice on effective teaching. The guidelines will augment the *FASE Divisional Guidelines for the Evaluation of Teaching Effectiveness for Promotion to Professor, Teaching Stream* (2018) as a FASE policy statement pertaining to teaching effectiveness. They will also replace the single-page *Evaluation of Teaching Effectiveness* (undated) our current policy for the assessment of teaching effectiveness in tenure, continuing status and tenure stream promotion decisions.

At the conclusion of the presentation, the following regular motion was moved and seconded –

THAT the document *Faculty of Applied Science and Engineering Guidelines for the Assessment of Effectiveness of Teaching in Tenure, Continuing Status and Promotion Decisions* be approved as described in Report 3705 Revised, effective September 1, 2022.

A Council member expressed disappointment that there is no connection in the guidelines between student learning and defining excellence in teaching, and that we are not seeking student input. Another member urged caution on conflating an instructor's popularity with their teaching ability and stated that teaching should be evaluated on criteria over which the instructor has control. Professor Tallman drew Council's attention to two criteria used to assess effectiveness in teaching that also impact student experience: strong communication skills, and success in stimulating and challenging students and promoting their intellectual and scholarly development.

The motion was carried.

## **8. Creation of Collaborative Specialization in Neuromodulation**

Julie Audet, Vice-Dean, Graduate Studies and Chair of the Engineering Graduate Education Committee, presented Report 3716 Revised, a proposal to establish a Collaborative Specialization in Neuromodulation. The collaborative specialization will be a multidisciplinary and collaborative endeavor involving master's and doctoral students from participating degree programs in the Faculty of Applied Science & Engineering and the Institute of Medical Science in the Temerty Faculty of Medicine. Its primary goal is to introduce students to various neuromodulation modalities, provide them with the knowledge to be prepared for research or industrial endeavours in neuromodulation, and provide hands-on experience performing neuromodulation research.

Professor Audet also reminded Council that collaborative specializations provide students enrolled in participating degree programs an additional multidisciplinary experience as they complete their home degree program. They normally require students to complete a core academic activity (such as a core course), participate in activities and seminars offered by the collaborative specialization, and incorporate the disciplinary focus of the collaborative specialization into any final research requirements of the home degree program. Upon successful completion of collaborative specialization requirements, students receive a certificate of completion and a notation on their transcripts.

At the conclusion of the presentation, the following regular motion was moved and seconded –

THAT the creation of a Collaborative Specialization in Neuromodulation, as described in Report 3716 Revised, be approved.

There was no discussion and the motion was carried.

## **9. Creation of Collaborative Specialization in Robotics**

Professor Audet presented Report 3717 Revised, a proposal to create a Collaborative Specialization in Robotics which will build a structured community of practice that combines engineering and computer science approaches to robotics and its applications, including healthcare, mobility, and advanced manufacturing. This collaborative specialization will be open initially to master's and doctoral students from participating degree programs in the Faculty of Applied Science & Engineering, the Department of Computer Science in the Faculty of Arts & Science (including students affiliated with the University of Toronto Mississauga), and the Temerty Faculty of Medicine's Rehabilitation Sciences Institute. The collaborative specialization aims to improve the robotics graduate student experience at UofT by building a community of practice that combines engineering, computer science, and applied approaches to robotics education.

At the conclusion of the presentation, the following regular motion was moved and seconded –

THAT the creation of a Collaborative Specialization in Robotics, as described in Report 3717 Revised, be approved.

During discussions, Professor Audet clarified the difference between a collaborative specialization (an additional multidisciplinary experience for graduate students as they complete their home degree program) and an Extra-Departmental Unit (a flexible and multidisciplinary entity organized around emerging research and teaching areas that span disciplines), which can support collaborative specializations.

The motion was carried.

## **10. Closure of Program Fields of Study in Mechanical & Industrial Engineering**

Professor Audet presented Report 3718, a proposal to close the graduate fields of study in Mechanical & Industrial Engineering. Fields of study were once required by the Ontario Council of Graduate Studies to advertise areas of strength within a department; however, MIE never formally grouped degree programs students into these specific fields, and program requirements for the MEng, MASc and PhD remained the same regardless of a student's area of specialization.

At the conclusion of the presentation, the following regular motion was moved and seconded –

THAT the closure of all program fields of study in the Department of Mechanical & Industrial Engineering, as described in Report 3718, be approved.

During discussions, a Council member asked if all departments should close their fields of study as a similar “house-keeping” measure. Professor Audet replied that some departments may be using their fields if they align with current graduate emphases; however, if they would like to change or create new areas of study, like MIE, they should close their outdated fields.

The motion was carried.

## **11. Adding Flex-Time Option to PhD Program in Civil & Mineral Engineering**

Professor Audet presented Report 3719 Revised, a proposal to add a Flexible-Time option to the PhD program in Civil & Mineral Engineering, allowing practicing professionals in a relevant field of study who require a modified time period and/or content delivery option to complete the requirements of the PhD program. Students in the Flexible-Time option will be registered full-time during the first four years and part-time during subsequent years in the program.

At the conclusion of the presentation, the following regular motion was moved and seconded –

THAT the addition of a flexible-time option to Civil & Mineral Engineering's existing PhD program, as described in Report 3719 Revised, be approved.

There was no discussion and the motion was carried.

## **12. Reports for Information**

### **(a) Engineering Graduate Education Committee: Update**

Report 3720 Revised was approved by the Executive Committee of Council at its April 6, 2022 meeting and is for Council's information.

Julie Audet presented the report, listing new AER, APS, BME, CHE, CIV, ECE and MIE courses approved; minor modification to existing courses in CHE, CIV, and TEP; and a minor modification to codify a course in the CHE PhD. Also approved were two minor modifications to the

Collaborative Specialization in Psychology & Engineering: to add the MSc and PhD programs in the Temerty Faculty of Medicine's Institute of Medical Science; and to rename the collaborative specialization as the "Collaborative Specialization in Psychology, Psychiatry & Engineering."

There was no discussion and the report was received for information.

**(b) Report of the Engineering Alumni Network Awards Committee**

The Engineering Alumni Network Awards Committee provides updates directly to Faculty Council for information.

Brenda McCabe, Professor Emerita and Chair of the Engineering Alumni Network Awards Committee, presented Report 3721, which lists candidates for the induction into the 2022 Engineering Alumni Hall of Distinction, and recipients of the Engineering Alumni Medal, 2T5 Mid-Career Award, 7T6 Early Career Award, Malcolm McGrath Alumni Achievement Award, L.E. (Ted) Jones Award of Distinction, and Honourary Member of the EAN Award.

Professor McCabe stated that, starting in 2023, the Report of the Engineering Alumni Network Awards Committee will be presented to Faculty Council at Council's December meeting to better align with the timing of the EAN awards ceremony which is typically held in early November.

There was no discussion and the report was received for information.

**13. Other Business**

Speaker Javad Mostaghimi acknowledged and thanked standing committee and board chairs who will complete their 2021-2022 terms in June or October 2022.

There were no other items of business.

**14. Service Presentation and Awards**

**(a) Academic Administrators**

Dean Yip acknowledged and thanked Will Cluett, who will complete his term as Director of the Division of Engineering Science on June 30, 2022, and Ramin Farnood, who completed his term as Vice-Dean, Research on December 31, 2021, and presented them each with a token of the Faculty's appreciation.

**(b) Teaching Assistant Award Recipient**

The Teaching Assistant Award recognizes teaching assistants who demonstrate outstanding performance in classroom instruction, consultation with students outside class, the use of effective teaching methods, and the development of course material.

Dean Yip acknowledged the 2022 award recipient, Crystal Liu, an MASc candidate in Materials Science & Engineering, thanked her for her outstanding contributions to engineering education in the Faculty, and presented her with a token of the Faculty's appreciation.

**15. Date of Next Meeting**

The schedule of governance meetings for 2022-2023 is being developed and will be shared with Council when available.

**16. Adjournment**

The meeting was adjourned at 1:40 pm.

/cz