



## MEMORANDUM

**To:** Executive Committee of Faculty Council (April 7, 2020)  
Faculty Council (April 29, 2020)

**From:** Professor Ramin Farnood  
Vice-Dean, Research and Chair, Research Committee

**Date:** March 24, 2020

**Re:** Proposal to Re-name the *Institute for Robotics and Mechatronics*

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## REPORT CLASSIFICATION

This recommendation was approved by the Faculty's Research Committee at its meeting on March 25, 2020. It is a routine or minor policy matter that will be considered by the Executive Committee for approving and forwarding to Faculty Council for information.

## RATIONALE AND CONTEXT

The Institute for Robotics and Mechatronics is requesting its name and brand be changed from "Institute for Robotics and Mechatronics, Faculty of Applied Science and Engineering" to "University of Toronto Robotics Institute".

There are two critical components to this name change: 1) Dropping the term "mechatronics"; and 2) Branding the Institute as university-wide. The rationale and context are explained below.

1. It is proposed to drop "mechatronics" from the name of the EDU and simply use "robotics" to better reflect the breadth of robotics research and education at UofT, as well as international trends in the definition of what constitutes robotics. Robotics is commonly understood by its practitioners at UofT and by their international peers as a systems-level discipline that encompasses not just mechatronics, but also sensing, manipulation, localization, control, machine learning, and human-robot interaction/collaboration.

Other top ranked university robotics institutes have taken a similar approach to using the broader robotics term, for example: Georgia Tech Institute for Robotics and Intelligent Machines, the Robotics Institute at Carnegie Mellon University, the Bristol

Robotics Laboratory, the Edinburgh Centre for Robotics, the Michigan Robotics Institute, the UC San Diego Contextual Robotics Institute, and the Waterloo RoboHub.

2. The EDU is requesting university-wide branding in order to better reflect and provide cohesion to the significant current and planned university-wide robotics activities that are taking place in FASE, the Faculty of Arts and Science, the Faculty of Medicine, and at UTM and UTSC, since robotics has been identified as a strategic sub-theme at the university.

While it is clear that FASE will continue to be a key partner and lead Faculty for the Robotics Institute going forward, a university-wide brand affiliation will better represent the Institute's computer science faculty within the Faculty of Arts and Science at the St. George campus (e.g. Profs. Sheila McIlraith, Raquel Urtasun, Sanja Fidler), UTSC (e.g. Prof. David Fleet) and at UTM (e.g. Profs. Jessica Burgner-Kahrs, Florian Shkurti, Animesh Garg), as well as PIs within the Faculty of Medicine (e.g. Profs. James Drake, Robert Hamilton). We also note a planned human-robot-interaction hire at UTM Cognitive Psychology, and a planned digital fabrication hire in the Faculty of Architecture, Landscape and Design.

While such broad interest in robotics across the university is reflective of the many application areas and approaches that robotics touches on, what unites the various clusters around campus is expertise in the underlying / enabling cross-disciplinary robotics technologies: design, sensing, decision-making, control, machine learning, and collaboration.

Uniting UofT robotics under a single banner will enable us to better compete with other major robotics institutes that are adopting a similar approach; for example, the Georgia Tech Institute for Robotics and Intelligent Machines (a global leading robotics institute) "breaks through disciplinary boundaries" by uniting faculty and students from the College of Computing and the College of Engineering under a common Georgia Tech Robotics brand.

## **CONSULTATION**

The following stakeholders have been closely consulted and are key supporters of the proposed initiative: Prof. Chris Yip, FASE Dean; Prof. Christina Amon, FASE Dean Emerita; Prof. Markus Bussmann, Chair of the Department of Mechanical and Industrial Engineering (MIE, FASE); Prof. Christopher Damaren, Director of the University of Toronto Institute for Aerospace Studies (UTIAS, FASE); and Prof. Konstantin Khanin, Chair of Mathematical and Computational Science (MSC, UTM).

The name change request has also been more broadly supported by UofT faculty and senior administrators from across the university as part of a larger strategic planning process. In 2017, a Robotics Strategic Planning Committee was struck to study and propose a strategic vision for robotics at UofT that would maximize the university's potential in this strategic area. The committee was co-chaired by Prof. Tim Barfoot (UTIAS) and the current IRM Director Prof. Goldie Nejat (MIE). The remaining Committee membership included faculty from across FASE and the Department of Computer Science in the Faculty of Arts and Science: Profs. Ravin Balakrishnan (Chair of Computer Science, FAS); Chris Bouwmeester (IBBME); Will Cluett (ChemE); Sven Dickinson (former Chair of Computer Science, FAS), Roman Genov (ECE); Ben Hatton (MSE); Kamran Esmaeili (CivMin); Manfredi Maggiore (ECE); Angela Schoellig (UTIAS); and Yu Sun (MIE).

To solicit a variety of perspectives from across the university, the Committee held a full-day workshop that brought together 22 UofT faculty and other stakeholders to advise on these issues. Following the workshop, one of the Strategic Planning Committee's priority recommendations was to: "Evolve IRM into a new UofT Institute for Robotics" and to "Create a new, university-wide UofT Institute for Robotics". Surveys of additional stakeholder groups including students and industrial collaborators were conducted and broadly all groups recommended a cohesive robotics organization for the university. The committee generated a detailed report that provided a strategic plan for robotics at UofT.

In 2019 these recommendations were supported by FASE through a DSF award aimed at generating the funding and mandate to carry out the recommendations from the Robotics Strategic Planning Committee. The DSF application's top stated priority was to "rebrand the existing Institute for Robotics and Mechatronics as the "UofT RI (Robotics Institute)" in order to achieve the Committee's broader goal of maximizing cohesion among UofT's dispersed robotics activities and generating international visibility for UofT robotics to become one of the top recognized brands in this globally competitive field. The DSF was awarded by FASE with the expectation that the new Institute would carry out this mandate.

## **BRANDING GUIDELINES**

It is proposed that acceptable name variations for the University of Toronto Robotics Institute include: "UofT Robotics Institute", and "UofT RI". The acronym UTRI will not be used in order to prevent confusion with the University of Toronto Transportation Research Institute (UTTRI).

## **EFFECTIVE DATE**

April 29, 2020

## **RECOMMENDATION FOR FACULTY COUNCIL**

For information.