



UNIVERSITY OF TORONTO
FACULTY OF APPLIED SCIENCE & ENGINEERING

Memorial Tribute to

CRISTIANA AMZA

Professor

The Edward S. Rogers Sr. Department of Electrical & Computer Engineering

December 7, 2023

Be it resolved –

THAT the Council of the Faculty of Applied Science & Engineering record with deep regret the death on September 8, 2023 of Professor Cristiana Amza.

Professor Cristiana Amza was born in Bucharest, Romania, in 1968. With her husband Marius, she has two children, Stefan and Gabriela.

Cristiana was driven from an early age by her love for computer science. She graduated from Bucharest Polytechnic University in 1991 and followed her passion across the Atlantic to Rice University in Houston, U.S., where she completed her master's degree in 1997 and her PhD in 2003. She achieved her goal of becoming a professor that same year in The Edward S. Rogers Sr. Department of Electrical & Computer Engineering (ECE) at the University of Toronto, eventually promoted to Full Professor by 2018.

Cristiana's research in distributed systems and cloud computing was internationally acclaimed and widely cited. Her research project called "Treadmarks," published in 1996 is an excellent example of how a simple, clean interface based on well-defined abstractions can provide a powerful and potentially useful parallel system. She was able to implement a "lazy" release consistency model for shared memory on a network of workstations that are not connected by physical memory. Treadmarks made a range of applications more efficient, and it was a natural environment for writing programs. Cristiana also made significant contributions to enhance the efficiency and reliability of cloud-based infrastructure, developing new techniques to optimize resource allocation of computers and networks that maximized performance and minimized costs. She worked towards a cloud infrastructure that could self-manage, self-tune and self-heal for a scalable, diverse range of applications, such as e-commerce, online bidding, neuroscience modelling and multiplayer games.

Over the years, Cristiana received numerous awards and recognitions, including IBM's 2011 CASCON International conference best paper award, the 2008 Middleware Conference best paper award and the 2007 Early Research Award. She collaborated with some of the most influential companies in the industry, including Intel, Bell Canada and IBM.

Cristiana had a special rapport with her students, who thought very highly of her. She was sharp-minded and generous, and during her time in ECE she guided and mentored many to great accomplishments. Professor Khoman Phang observed that her feedback with undergraduates was so gentle, encouraging and positive, it allowed them to relax and absorb what she had to say. Professor Ashvin Goel, who followed her as an instructor of a computer programming course, says, "Her exams in the course were legendary. They helped me understand the course material better!" Professor Mark Jeffrey credits her with a significant impact on his career: "She was one of the first to pique my interest in computer performance," he says. "Her quiet chuckle at her own jokes was legendary among my peers. We loved it."

This picture of a kind and selfless person, a genuine friend to many in the department, is repeated again and again by those who knew her. Over the years, conversations extended beyond engineering into the day-to-day joys and struggles of a life in academia, of finding a balance between work and family, always punctuated with Cristiana's trademark smile. Professor Ding Yuan first met Cristiana when he was a graduate student and she was on his hiring committee the year he was hired. "When I first came to U of T, Cristiana was a mentor and she and her family also helped us in every possible way in our move to Toronto. She was one of the most selfless and kind people I've known."

Professor and Chair, Deepa Kundur reflects on Cristiana's legacy: "She was a kind, sensitive and gentle soul and a genuine friend to many colleagues in the department. She was incredibly talented, thoughtful and didn't hesitate to stand up for the underdog."

Cristiana's tenacity, her intellectual curiosity, and her friendliness and warmth made her such a beloved colleague. She will be sorely missed.

Be it further resolved –

THAT this tribute to Professor Cristiana Amza 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.

Prepared by Professor and Chair Deepa Kundur; Professors Emeriti Phil Anderson and Safwat Zaky; and Professors Ravi Adve, Berj Bardakjian, Vaughn Betz, Margaret Cheng, George Eleftheriades, Ashvin Goel, Mark Jeffrey, Ashish Khisti, Baochun Li, David Lie, Antonio Liscidini, Hoi-Kwong Lo, Mo Mojahedi, Wai Tung Ng, Khoman Phang, Li Qian, Micah Stickel, Shahrokh Valaee, Andreas Veneris, Belinda Wang, Paul Yoo, and Ding Yuan