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

Memorial Tribute to

JOHN GREGORY STEFFAN

**Associate Professor in The Edward S. Rogers Sr.
Department of Electrical & Computer Engineering**

October 8, 2014

Be it resolved that the Council of the Faculty of Applied Science & Engineering record with deep regret the death on July 24, 2014 of John Gregory Steffan.

John Gregory Steffan, Greg to all who knew him, was born on August 27, 1972.

Greg attended the University of Toronto and received his Bachelor of Applied Science degree in Computer Engineering in 1995, and a Master's of Applied Science in Computer Engineering in 1997. He earned a PhD in Computer Science from Carnegie Mellon University in 2003.

At Carnegie Mellon University he was elected as a Siebel Scholar, a program that recognizes the most talented students at the world's leading graduate schools of business, computer science, and bioengineering. In 2003 he also received the School of Computer Science Doctoral Dissertation Award at Carnegie Mellon for the top PhD thesis that year, a highly cited treatise on Thread-Level Speculation in multi-threaded processors.

He rejoined the University of Toronto as an Assistant Professor in 2004 and launched a career characterized by outstanding research, teaching and citizenship. His research dealt with various aspects of improving computer performance through parallelism. Building on his PhD, he continued to find innovative and clever ways to enhance parallelism in single and multi-core computers, and branched out into innovative uses of Field-Programmable Gate Array implementations of processors. This work included applications to network packet processing, vector processing, and an award-winning paper on novel ways to implement multi-ported memories—this paper was cited as one of the top 25 papers in the first 20 years of the principal FPGA conference.

His colleagues remember his research intellect and achievements as both logically sound and deeply innovative. His reputation and respect went beyond the boundaries of our school. He was one of the few IBM Center of Advanced Studies Research Fellows and was overall a highly regarded investigator whose work crossed several research communities. He was promoted to Associate Professor with Tenure in 2009, and continued to look for new ways to make computing and computers more efficient, a vital area of inquiry.

As a teacher, his students deeply admired his efforts and ideas. He taught a wide variety of courses over his short time here, ranging from first-year computer programming to a final-year complex course on optimizing compilers. He was one of the first teachers of a new course that dealt with high-performance software development, adding a key missing element to our software program.

Greg was a wonderful departmental citizen; he often volunteered to help organize things that no one realized needed organizing. He created a web page with all the things he had to learn as a new faculty member, so that others could easily learn them. He thought carefully about how the undergraduate laboratory in digital and computer systems should run, so that all courses could benefit from it, not just his own. He was the creator and driving force behind the Compiler and Architecture Reading Group, a seminar series that brought several groups together and has become an integral part of our research and training practice.

He was a lifelong guitar player, and played in a rock-and-roll band in the 90s. Indeed, he was the only one in the ECE Department who chose to play an instrument (the guitar) when introducing himself to the department in the 15-minute get-to-know-you seminars that each faculty member gives. His passion for music and guitar playing led him to lead a Fun-with-Faculty event for first-year students that included playing both real guitars, and the video game Guitar Hero.

His sense of humour and eye for justice came together when the Mattel Company announced a contest to determine which of several new possible careers the next Barbie Doll should portray. Greg campaigned to have his colleagues and students vote online for Computer Engineer, and he was delighted when this came to be. He bought his own Computer Engineer Barbie and kept it in his office.

He enjoyed playing golf and brought his careful analytical skills to the analysis of the universal failure at that sport. At an Alumni golf tournament, he helped his group by reciting the Engineer's Chant, when challenged at one of the holes. He was an avid ball hockey player, specializing in goaltending, in a weekly ball hockey league.

He was a regular attendee of the Computer Group informal lunches where colleagues shared animated discussions of group and departmental issues, new questions in the field, and the latest observations Greg had seen online in forums such as reddit.com.

Greg's colleagues were heartbroken at his sudden passing, and we all miss his wonderful spirit of collaboration and fun.

Be it further resolved that a record of his service be inscribed in the minutes of this Council, and that a copy be sent to his family as an expression of the respect and gratitude of the members of Council.

Prepared by Professors Paul Chow, Andreas Moshovos and Jonathan Rose