**STATEMENT OF INTEREST: SENATE MEMBERSHIP Wael El-Dakhakhni, PhD, PEng, FASCE**

This is to express my interest to serve on the Senate and to give the electorate a brief overview of my research focus, teaching experience and contribution and service within and outside the university.

I first joined McMaster as a Post-doctoral Fellow in 2002 and later as a CLA Assistant Professor in 2005. In 2007 I was selected to hold the *Martini, Mascarin, and George* endowed research chair. My work for the past two decades has been focused on evaluating and improving the response of infrastructure under natural and anthropogenic hazard conditions, for which I was awarded numerous grants and awards including an Ontario Early Researcher Award (2010) and two Discovery Accelerator Supplements from NSERC (2011, 2016). I have been also serving on different Canadian and US code and standard committees for my expertise in evaluating performance under extreme loading conditions.

In 2014, I started to extend my focus to system-level climate risk and resilience quantifications and have been awarded and served as the director of the Canadian Nuclear Energy Infrastructure Resilience under Systemic Risk (CaNRisk) NSERC-CREATE program 2016-2023. My current research focuses on addressing challenges at the interfaces between natural, social and medical sciences and engineering. Over the past 20 years, my research group included 37 Master and 37 PhD students and twelve post-doctoral fellows, many of them have been awarded numerous prestigious scholarships from the Ontario government and NSERC (e.g., three Vanier scholarship awardees) and currently hold academic positions (22 Full, Associate and Assistant Professors) in Canada and across the glove and leadership position in the private- and public sectors.

I am a licensed professional engineer in Ontario, a Fellow of the American Society of Civil Engineers (ASCE) and a member of the ASCE *Risk & Resilience Measurement Committee* and the ASCE *Disaster Response and Recovery Committee*. I am also a section editor of the ASCE Journal of Structural Engineering and was distinguished as a *McMaster University Scholar* in 2017. I was also honored as a Member of the *Royal Society of Canada, College of New Scholars, Artists and Scientists* in 2016 and my research work has significantly contributed to placing Civil Engineering amongst the highest ranked programs (ARWU, 2020) in McMaster, Canada and worldwide.

Adopting an approach to link course content to real life applications, I have taught undergraduate courses on mechanics, low- and high-rise buildings, both structural and civil capstone graduation projects, as well structural design of concrete, masonry and wood systems. To alleviate the impact of COVID-19 on undergraduate students, I have been introducing radical changes to course delivery and assessment including for example teaching design courses following a *‘visual design’* approach— encouraging more engagement during virtual lectures and tutorials.

My graduate courses have been equipping students with unique tools that set them apart from graduates of other Canadian universities. These experiential learning multi-disciplinary courses included: *Systemic Risk & Resilience Modeling, Analysis and Visualization*; *Complex Systems Simulation & Data Analytics*; and *Digital Twin System Simulations*. In order to create all-round job-ready employees upon graduation, a unique aspect of my graduate student training involves facilitating internship opportunities, aligned with students’ research focus and professional goals, through my public- and private-sector research partners. I have been on the Dean of Engineering Doctoral Mentoring Honor Roll for the past eight years since its inauguration in 2016 and was nominated twice for the President's Award for Excellence in Graduate Supervision.

Throughout my 20+ years at McMaster, I have served as a Senator and a member of numerous department-, faculty- and university level committees including Senate Committee on Appointment, Senate Honorary Degrees Committee, Selection/Nomination Committees for Associate Deans, Department Chairs, Directors, Endowed Chairs; both the Department and the Faculty Tenure & Promotion Committees; University Research Finance Functional Review Committee, Faculty Committee-Undergraduate Curriculum Policy, Department Appointments Committee, as well as serving as an Acting Department Chair, Associate Chair-graduate studies, Associate Chair-research and a mentor of ten early career colleagues in McMaster.

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