

Professor Raphael (Rafi) T. Haftka (1944–2020)

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The Structural and Multidisciplinary Optimization (SMO) community mourns the loss of Professor Raphael Haftka who led our Journal as Editor in Chief since 2015 until he left us on August 16, 2020. Beyond his tremendous impact on our Journal and as a researcher during his remarkable 50-year career, he will be remembered by many as a dear friend, a mentor, and role model who stood out with wisdom, kindness, humility, generosity, and selfless service. He is also known for his universal silver lining perspective of an eternal optimist, with a distinct twist of Haftka style sense of humor.

Professor Haftka was born February 22, 1944, in Tel-Aviv, Israel. His professional journey started as an aerodynamicist at the Israeli Aircraft Industries from 1965 to 1968. From 1973 to 1975 he was a senior lecturer at Technion-Israel Institute of Technology, after postdoctoral research

fellowships at NASA and other US organizations. His career moved to the USA when he became an Assistant Professor at Illinois Institute of Technology in 1975. Subsequently, he held the positions as Professor/Christopher Kraft Professor at Virginia Tech from 1981 to 1994, and Professor/Distinguished Professor at the University of Florida from 1995 until retirement in 2019.

During his tenure as editor in chief, Professor Haftka significantly advanced the legacy of our founding editor Professor George Rozvany, doubling the journal's publishing volume and further strengthening its scientific impact. In particular, he made it a top priority for the journal to focus on its readers, emphasizing in his own words: "(a) Publish papers that are of interest; (b) Publish papers that are not unnecessarily difficult to read; (c) Publish papers with results that are easy to replicate". Two years ago, he introduced a new policy, making "Replication of Results" a mandatory section for all SMO publications. He also further strengthened our unique voluntary editor system invented by the founding editor George Rozvany. Now handling editors are credited by name in the publications. Another equally important aspect Rafi emphasized was about fairness and equal opportunity for every contributing author. He constantly reminded our team of around 40 review editors the importance of avoiding bias and the appearance of bias. All these efforts have been highly appreciated by authors, editors, and readers.

Professor Haftka's contributions to our research field are immeasurable—some important statistics: 330 journal papers, 530 conference proceedings papers, 12 book chapters and two textbooks, and over 34,000 Google citations. His major research impacts include—early pioneering contributions to approximation concept including the far-reaching convex/conservative approximation; landmark papers on sensitivity analysis; leadership in creating/promoting MDO, surrogate modeling, and nondeterministic methods. Beyond his remarkable contributions as a researcher, Professor Haftka was also a key influencer within his research community. He was among the founders of

ISSMO (International Society of Structural and Multidisciplinary Optimization) in 1991 and served as ISSMO's second president between 1995 and 1999. He has received many distinctions throughout his career, including Virginia Tech Alumni Award for Excellence in Research, AIAA Fellow, AIAA Multidisciplinary Design Optimization Award.

Another unique trademark of Professor Haftka's career is his broad outreach in collaborative research: he supervised 65 PhD students, cooperated with colleagues worldwide, and was especially fond of nurturing aspiring young researchers. He coauthored papers with over 180 peers, excluding his students.

Professor Haftka is survived by his beloved wife and companion, Rose Haftka. We wish to extend our deepest condolences to Rose and their extended family.

Silvia Schilgerius, Senior Publishing Editor at Springer
Helder Rodrigues, Ming Zhou, Editors-in-Chief

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