

Nomination of Vladik Kreinovich for the position of VP-Publications of IEEE SMCS

PERSONAL BACKGROUND AND CONTRIBUTIONS TO PROFESSION

Vladik Kreinovich (M'91-SM'08) is a professor at the University of Texas at El Paso, USA. He has more than 30 years of experience in research in uncertainty quantification and intelligent information processing. Specifically, his contributions involve theoretical and foundational analysis of several semi-heuristic algorithms, development of numerous efficient optimal and sub-optimal algorithms for data processing (in particular, statistical data processing) under interval and fuzzy uncertainty, and applications to geosciences, environmental science, biosciences, image and signal processing, economics, etc. His research has been supported by 10+ agencies with more than \$20 million. He has published more than 1100 papers, including six books, 10 edited books, and more than 150 papers in IEEE journals and proceedings of IEEE-sponsored conferences. He has organized several international conferences (including several IEEE-sponsored one) as general chair, and delivered several keynote talks at major international conferences.

Dr. Kreinovich received his BSc and MS degrees from St. Petersburg University, Russia, and PhD from Institute of Mathematics, Soviet Academy of Sciences, Novosibirsk. He served as President of the North American Fuzzy Information Processing Society in 2012-14. He is a foreign member of the Russian Academy of Metrological Sciences. He was the recipient of the 2003 El Paso Energy Foundation Faculty Achievement Award for Research awarded by the University of Texas at El Paso; and he was a co-recipient of the 2005 Star Award from the University of Texas System.

Contributions to the IEEE, SMC Society, and other professional societies:

Since 2003, member of the Fuzzy Technical Committee of the IEEE Computational Intelligence Society; in 2003-07, chaired Fuzzy Technical Committee's Task Force on Interval Computations; in 2013, Chair of the IEEE Fuzzy Technical Committee.

SMCS: member of the program committees of numerous IEEE conferences on SMC-related topics; presented and reviewed papers at several SMC conferences; organized the Wiener Awardees panel at SMC'2014 conference; member of the SMCS Board of Governors; SMCS VP Publications 2015-16.

Other professional societies: since 1992, actively participated in

annual international conferences organized by the North American Fuzzy Information Processing Society (NAFIPS) and sponsored by SMCS; in most years, was a member of the Program Committee; in 2008 and 2009, served as co-chair of the Program Committee; general co-chair of 2011, 2015, and 2016 conferences; in 2012-14, was President of NAFIPS.

Candidate's Statement

IEEE publications are known for their high academic standards and for their consistently strong reputations. However, the ultimate goal of research -- especially of IEEE-sponsored engineering research -- is to lead to successful practical applications. From this viewpoint, the main challenge to our publications is to make them more practically useful.

One of the main ways to make applications of published results easier is to supplement the papers themselves with supplemental materials such as multi-media presentations, code for implementing algorithms, case studies with pedagogical and real-life examples, etc. I will continue to work with Publications Committee to develop new ways to encourage authors to supply this additional information, and to make it easier for SMCS publications to process such postings.

Conferences help researchers and practitioners better understand new ideas and thus, help facilitate application of these ideas. In the last decades, the inclusion of all conference papers in IEEE Explore made these papers more widely available, but on the other hand, it hindered the transition from a short (and often somewhat preliminary) conference papers to more archival journal ones. We need to continue to work with the Conference Committee to explore and utilize the best practices of IEEE (and of other professional organizations) in overcoming this obstacle -- e.g., by developing Letters sections at our publications and/or a special Letters journal.

Successful practical applications often require multi-disciplinary efforts, spanning research areas of several IEEE societies. From this viewpoint, it is imperative to enhance collaboration between societies, to actively promote each other's relevant results, to more actively support joint publications and to launch new ones.