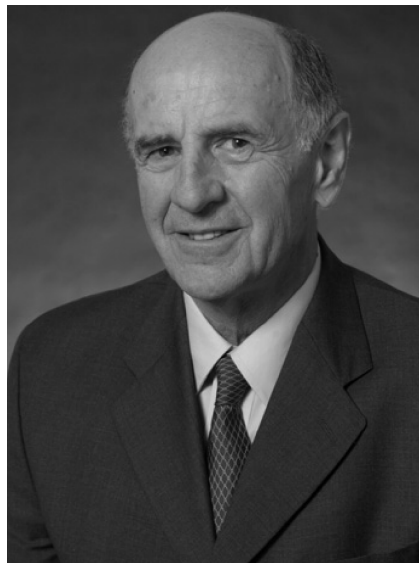


## Guest Editorial

### **Dusan Krajcinovic: A biographical note**

Professor dr Dusan Krajcinovic was born on March 28, 1935 in Zagreb, Kingdom of Yugoslavia; he passed away on August 10, 2007 in Madison, Wisconsin, USA.



Dusan Krajcinovic entered Faculty of Civil Engineering, University of Belgrade in 1953, and received his Bachelor degree in 1958. Later he attended a Master degree program in Structural Mechanics from 1964 to 1966, which he completed, with the averaged grade of 9.9 out of 10, as the first student in a highly competitive class. Afterwards, he moved with his family to USA following an invitation of Professor George Hermann; entered Northwestern University, Evanston, Illinois; and earned his PhD in 1968.

Professor Krajcinovic started his career of a professional civil engineer in 1959 as a member of technical staff in Energoprojekt, Belgrade, Yugoslavia. He contributed to some major civil engineering projects such as Bajina Basta (a 92-m high segmented hollow concrete dam); Otovica (a 30-m high concrete arch dam); Buk Bijela (a preliminary analyses of the shape of a concrete arch dam); Glazanj (a 90-m high concrete arch dam); two railroad bridges in Ljubljana; road bridge over Sava river at Orasje (an 800-m long continuous

bridge with a main span of 135 m); Hotel-Apartment Tower in Belgrade (a 15-store high building). After earning his PhD in USA, he continued his career in Ingersoll Rand Research Inc., Princeton, New Jersey. From 1969 to 1973 he was at Argonne National Laboratory, Illinois in the Theoretical and Applied Mechanics Group. Although he left Argonne in 1973 to pursue academic career he remained a staff member until 1979.

Dusan Krajcinovic's academic development started 1961-66 at his alma mater, the Faculty of Civil Engineering, University of Belgrade. As an accomplished professional engineer and researcher he re-entered academia in 1973, when he became a faculty member at Department of Civil Engineering, University of Illinois, Chicago. From 1989 till retirement he was a Professor in Department of Mechanical and Aerospace Engineering, Arizona State University, Tempe, Arizona, where he was elected a Professor Emeritus in 2004. Professor Krajcinovic's research had a profound impact on the development of damage and fracture mechanics, micromechanics, and physics of disordered materials. He had been an influential contributor and respected authority in the research community for over three decades. Professor Krajcinovic authored and co-authored over 250 publications, including refereed journals, proceedings, monograph chapters, books. The landmark of his scientific merit, "Damage Mechanics" (North-Holland, 1996), stands among mechanics of materials classics.

During his brilliant career his consulting services were solicited by prestigious international names including Argonne National Laboratory; US Department of Interior; US Department of Energy; Procedyne Corporation; Electric Power Research Institute; Conselho de Gestao, Gabinete da Area de Sines, Lisbon, Portugal; Power Project Ltd; Sargent and Lundry Engineers; The World Bank; Lufthansa; Enrico Fermi National Accelerator Laboratory; University of Michigan, Ann Arbor; Wiss, Janney, Elstner Associates; Allied Signal; Sandia National Laboratories; Arizona Power, and others.

Professor Krajcinovic was continuously involved with professional societies such as ASME (fellow and President of AMD Executive Committee 1996-2001, Chair 2001-2002); American Academy of Mechanics (fellow and President 1999-2001); US National Committee of Theoretical and Applied Mechanics (2002-2005). At various times he also participated in activities of Stability Research Council, International Association for Structural Engineering in Reactor Technology, ASCE (non-member advisor of the Committee for Inelastic Behavior of Materials), and Engineering Academy of Yugoslavia. He was an organizer of and principal lecturer at courses at CISM - International Centre for Mechanical Sciences in 1985 and 1999; and Visiting Professor at Universite de Paris VI; University of Belgrade; Politecnico di Milano; Institute for The-

oretical Physics, University of California, Santa Barbara. He was a member of editorial boards of highly regarded scientific journals such as *International Journal of Damage Mechanics* (Editor in Chief), *Applied Mechanics Reviews* (Associate Editor, 1988-1994), *Mechanics of Materials* (Regional Editor, since 2000), and *International Journal of Non-Linear Mechanics* (Advisory Editor, 2000-2006). Professor Krajcinovic was an invited and a main contributor to numerous workshops, scientific meetings, symposia, and conferences. His contributions to the education of almost two generations of professional engineers and researchers cannot be overemphasized. He mentored a dozen PhD dissertations that span a period of almost 30 years. Professor Krajcinovic was a very demanding mentor but also an inspiring and respected one.

Professor Krajcinovic's outstanding achievements gain admiration of his peers and resulted in a number of awards and distinctions including October Prize for Mathematical, Physical, and Engineering Sciences (with D. Sumarac; Belgrade, Yugoslavia, 1990); Gold Medal in Science and Technology (Technical University of Crete, Greece, 2001); Laurea Honoris Causa (Politecnico di Milano, Italy, 2001). His impressive record of academic achievements was honored by his colleagues in a specially dedicated volume of *International Journal of Plasticity* (Volume 23, Issues 10-11, 2007) and a memorial issue of *International Journal of Damage Mechanics* (to appear).

This biographical sketch unavoidably resembles many others written lately to honor Professor Krajcinovic. Admittedly, it feels very short in illuminating his unique personality and versatility. Many of us who were privileged to work with him would remember him in much more profound way. We may cherish a memory of not only a self-made man of fruitful life and exceptional accomplishments but also a lifelong athlete, avid reader, opera fan, witty conversationalist; an open-minded man of the Renaissance curiosity. He had an urge and gift for camaraderie. He was a riveting storyteller and his memories, which swept amazingly over wide range of temporal and social strata, provided a remarkable building material. His home was a memorable meeting place of colleagues, friends, and generations of students, who will remember his trademark smiles, hearty laughs, and passionate arguments as well as a genuine hospitality.

He was a loving and tender husband to Tanya and father to Ivana and Maya.

Belgrade, August 10, 2008

D. Sumarac  
S. Mastilovic