Short Biosketch of DAN M. FRANGOPOL

Dr. Dan M. Frangopol is the inaugural holder of the Fazlur R. Khan Endowed Chair of Structural Engineering and Architecture at Lehigh University. Before joining Lehigh University in 2006, he was Professor of Civil Engineering at the University of Colorado at Boulder, where he is now Professor Emeritus. During the period 1979-83, he held the position of Project Structural Engineer with A. Lipski Consulting Engineers in Brussels, Belgium. In 1976, he received his doctorate in Applied Sciences with the highest distinction (summa cum laude) from the University of Liège, Belgium. Frangopol's main research interests are in the development and application of probabilistic and optimization concepts and methods to civil and marine engineering, including: structural reliability and probabilistic mechanics; life-cycle cost analysis; probability-based assessment, design, and multi-criteria life-cycle optimization of structures and infrastructure systems; structural health monitoring; life-cycle performance maintenance and management of structures and distributed infrastructure under extreme events (earthquakes, tsunamis, hurricanes, and floods); risk-based assessment and decision making; multi-hazard risk mitigation; infrastructure sustainability and resilience to disasters; and climate change adaptation. According to ASCE (2012) "*Dan M. Frangopol is a preeminent authority in bridge safety and maintenance management, structural system reliability, and life-cycle civil engineering. His contributions have defined much of the practice around design specifications, management methods, and optimization approaches. From the maintenance of deteriorated structures and the development of system redundancy factors to assessing the performance of long-span structures, Dr. Frangopol's research has not only saved time and money, but very likely also saved lives… Dr. Frangopol is a renowned teacher and mentor to future engineers.*" He is also "*widely recognized as a leading educator and creator in the field of life-cycle engineering*." (ASCE 2015). *"Frangopol's groundbreaking research into infrastructure from a holistic perspective has earned him a reputation in the civil engineering community" as the "Father of Life-Cycle Analysis."* (ASCE 2020).

Frangopol was inducted to the US National Academy of Construction, Canadian Academy of Engineering, Engineering Academy of Japan, Royal Academy of Belgium for Science and the Arts, Romanian Academy, Romanian Academy of Technical Sciences, and Academia Europaea (London). He is a Distinguished Member of ASCE (highest ASCE honor), Inaugural Fellow of SEI and EMI, and Fellow of ACI, IABSE, and ISHMII. Frangopol is ranked as the 10th most-cited civil engineering author in the August 2019 Stanford University worldwide citation survey published in PloS, and is ranked No.1 (Lehigh University), No. 45 (United States), and No. 95 (world) on April 6, 2022, by Research.com on the list of top scientists in Engineering and Technology.

Frangopol is the recipient of several national and international awards including OPAL Leadership Award for Lifetime Accomplishments in Education (ASCE); Newmark, Freudenthal, Housner, Croes (twice) Medals (ASCE); T.Y. Lin Medal (IABMAS, inaugural); Khan Medal (IALCCE, inaugural); Mufti Medal (ISHMII); Thorpe Medal (EC^3); Ang (inaugural), Howard, Moisseiff (twice), Reese Awards (ASCE); Noble, Wellington (twice), and State-of-the-Art of Civil Engineering (three times) Awards (ASCE); Munro Prize (ELSEVIER); Research Award (KAJIMA); Research Prize (IASSAR); Senior Research Prize (IABMAS); OPA Award (IABSE); Reliability and Optimization of Structural Systems Award (IFIP); Distinguished Probabilistic Methods Educator Award (SAE). He is also the recipient of the ASCE Lehigh Valley Section's Civil Engineer of the Year Award, Lehigh University's Hillman Faculty Award, Libsch Research Award, Hillman Award for Excellence in Graduate Advising, Rossin Excellence in Research Scholarship & Leadership Award, University of Colorado Excellence in Research, Scholarly and Creative Work Award, College of Engineering and Applied Science's Research Award, and Eckel Faculty Prize for Excellence. Frangopol holds four honorary doctoral degrees (Doctor Honoris Causa) from the Polytechnic University of Milan, Italy, University of Liège, Belgium, Technical University of Civil Engineering Bucharest, Romania, and Gheorghe Asachi Technical University of Iaşi, Romania. He is an Honorary Professor at 14 universities (Hong Kong Polytechnic, Tongji, Southeast, Hunan, Tianjin, Chang'an, Beijing Jiaotong, Chongqing Jiaotong, Dalian University of Technology, China University of Petroleum (East China), Changsha University of Science and Technology, Shenyang Jianzhu University, Royal Melbourne Institute of Technology, and Harbin Institute of Technology), a Visiting Chair Professor at the National Taiwan University of Science and Technology, and a Guest Professor at six universities in Europe and Asia.

Frangopol is the Founding President of the International Association for Bridge Maintenance and Safety (IABMAS) and of the International Association for Life-Cycle Civil Engineering (IALCCE), and Founding Vice-President of the International Society for Structural Health Monitoring of Intelligent Infrastructure (ISHMII). He is the Honorary President of the Brazil, Canada, Chile, Italy, South Korea, Sri Lanka, Turkey, and USA Groups of IABMAS, and of the Dutch Group of IALCCE, and Honorary Member of the IABMAS Australia, China, Japan, Portugal and Spain Groups. Frangopol is Past Vice-President of the International Association for the Structural Safety and Reliability (IASSAR), Past Chair of the Executive Committee of the Technical Activities Division of the 20,000+ members of the Structural Engineering Institute (SEI) of ASCE, Past Vice-President and Governor of the Engineering Mechanics Institute of ASCE, Past Chair of the Executive Board of IASSAR, Past Chair of IFIP WG7.5 on Reliability and Optimization of Structural Systems, and Founding Chair of the ASCE-SEI Technical Council on life-cycle performance, safety, reliability and risk of structural systems. He has held numerous leadership positions in national and international professional societies. Frangopol is an experienced researcher and technical consultant or advisor to industry and government agencies, both nationally and abroad. His work has been funded by NSF, FHWA, ONR, NASA, USACE, AFOSR, ARDEC, ASCE and by numerous other agencies including NATO, TEPCO, UK Highways Agency and Dutch Ministry of Infrastructure and Environment.

Frangopol is the Founder and Editor-in-Chief of *Structure and Infrastructure Engineering* and Founding Editor of the Book Series *Structures and Infrastructures*. He is the author/coauthor of four books, 64 book chapters, over 450 articles in archival journals (including 14 award-winning papers), and more than 600 papers in conference proceedings. He has edited/coedited 56 books and 28 special issues of archival journals. Frangopol's work has had a significant impact on structural engineering evidenced by an h-index of 96, an i10-index of 444, and more than 32,000 citations (Google Scholar). He has supervised the dissertations of 50 PhD students and the theses and reports of 56 MS students. 28 of his former students and post-doctoral researchers are university professors in the United States and abroad, and many are prominent in professional practice and research laboratories.

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