

Frangopol awarded 2021 ISHMII Mufti Medal for lifetime achievement in civil structural health monitoring

FRIDAY, MARCH 5, 2021

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The International Association of Structural Health Monitoring of Intelligent Infrastructure (ISHMII) has honored [Dan M. Frangopol](#), the inaugural Fazlur R. Khan Endowed Chair of Structural Engineering and Architecture at Lehigh University, with the 2021 Aftab Mufti Medal for lifetime achievement in civil structural health monitoring. The medal will be presented at the ISHMII award ceremony during the 10th International Conference on Structural Health Monitoring of Intelligent Infrastructure (SHMII10), June 30–July 2, 2021, in Porto, Portugal. [View award acceptance video](#) (updated July 2021)

Frangopol has made seminal scholarly contributions to structural health monitoring (SHM) by bringing reliability and optimization methods into this field. He is internationally recognized for pioneering the integration of health monitoring in life-cycle performance assessment, prediction, and optimization of structural systems under uncertainty. His innovative methodologies have been instrumental to tremendous advances in health monitoring of structural systems.

His contributions to the field of SHM include: (a) formulating an approach for the inclusion of monitoring data in the structural reliability assessment process; (b) demonstrating the use of monitoring data for the development of structural reliability prediction models; (c) optimizing the planning of structural performance monitoring based on reliability importance assessment; (d) optimizing maintenance strategies based on multiple limit states and monitoring; (e) integrating SHM in life-cycle performance assessment of civil infrastructure systems under uncertainty; (f) proposing cost-effective lifetime SHM based on availability; and (g) optimizing scheduling of inspection and monitoring for fatigue-sensitive structures.

These contributions are fully documented in (a) a recent book: [Life-Cycle of Structures under Uncertainty: Emphasis on fatigue-sensitive civil and marine structures](#), which Frangopol published in 2019 (CRC Press, Science Publishers) with his former student S. Kim as co-author, (b) several book chapters, and (c) about 40 papers in archival journals.

Frangopol is the Founding President of both the International Association for Bridge Maintenance and Safety (IABMAS) and the International Association for Life-Cycle Civil Engineering (IALCCE) as well as founding vice-president of ISHMII. He is also the past vice-president of the International Association for Structural Safety and Reliability (IASSAR) and past vice-president of the Engineering Mechanics Institute (EMI) of ASCE, as well as past member of its Board of Governors.

He has [authored/co-authored](#) three books, more than 50 book chapters, and over 420 articles in archival journals (117 in ASCE journals), including 11 prize-winning papers.

Frangopol is the founder and editor-in-chief of [Structure and Infrastructure Engineering](#), an international peer-reviewed journal launched in 2005, and of the book series [Structures and Infrastructures](#).

He is the recipient of several medals, awards, and prizes from ASCE, IABSE, IASSAR, ISHMII, and other professional organizations, including the Newmark, Freudenthal, Housner, Lin, Khan, and Croes (twice) medals; the Ang, Howard, Moisseiff, and State-of-the Art of Civil Engineering (three times) awards; the Munro, Noble, Reese, and Wellington prizes; the Lifetime Achievement Award in Education (OPAL); and the Civil Engineer of the Year Award.

Frangopol holds four honorary doctorates, 14 honorary professorships, and six guest professorships from major universities.

He is an Elected Member of the US National Academy of Construction, a Foreign Member of the Academy of Europe (London), a Foreign Associate of the Engineering Academy of Japan, a Foreign Member of the Royal Academy of Belgium, an Honorary Member of the Romanian Academy, an Honorary Member of the Romanian Academy of Technical Sciences, and a Distinguished Member of ASCE.

Read more about Frangopol's research and achievements [here](#).

Related Links:

- [Website: Dan M. Frangopol](#)
- [International Association of Structural Health Monitoring of Intelligent Infrastructure](#)
- [ISHMII: 2021 Aftab Mufti Medal presentation slides](#)
- [Video: ISHMII 2021 Aftab Mufti Medal presented to Dan M. Frangopol](#)



Dan M. Frangopol, Fazlur R. Khan Endowed Chair of Structural Engineering and Architecture

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P.C. ROSSIN COLLEGE of ENGINEERING & APPLIED SCIENCE

19 Memorial Drive W.
Lehigh University
Bethlehem, PA
18015

(610) 758 4025 engineering@lehigh.edu



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