



**ARMEN DER KIUREGHIAN**



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## 2024 Khan Distinguished Lecture Series

*The Fazlur Rahman Khan Distinguished Lecture Series honors Dr. Fazlur Rahman Khan's  
legacy of excellence in structural engineering and architecture*

**Initiated and Organized by PROFESSOR DAN M. FRANGOPOL**

The Fazlur Rahman Khan Endowed Chair of Structural Engineering and Architecture  
Department of Civil and Environmental Engineering, ATLSS Engineering Research Center,  
Lehigh University  
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### ARMEN DER KIUREGHIAN

Taisei Professor of Civil Engineering Emeritus  
University of California, Berkeley

President Emeritus  
American University of Armenia (affiliate of University of California)

### “Challenges in Future Development of Structural Reliability Methods”

**Friday, February 2, 2024 – 4:30 pm EST**

Lecture will be live streamed, [must REGISTER HERE for live stream link](#)

<http://www.lehigh.edu/frkseries>

In step with the abounding vitality of the time, structural engineer **Fazlur Rahman Khan** (1929-1982) ushered in a renaissance in skyscraper construction during the second half of the 20th century. Fazlur Khan was a pragmatic visionary: the series of progressive ideas that he brought forth for efficient high-rise construction in the 1960s and '70s were validated in his own work, notably his efficient designs for Chicago's 100-story John Hancock Center and 110-story Sears Tower -- the tallest building in the United States since its completion in 1974.



**Fazlur Rahman Khan**

Lehigh endowed a chair in structural engineering and architecture and has established this lecture series in Khan's honor. It is organized by **Professor Dan M. Frangopol**, the university's first holder of the Fazlur Rahman Khan Endowed Chair of Structural Engineering and Architecture, and sponsored by the Departments of Civil & Environmental Engineering, and Art, Architecture & Design.

**Armen Der Kiureghian** is the Taisei Chair and Distinguished Professor of Civil Engineering Emeritus at the University of California, Berkeley. During his service to UC Berkeley from 1978 to 2015, he held the positions of Vice Chair (1990-93) and Chair (1997-01) of the Structural Engineering, Mechanics and Materials Program, and Vice Chair for Instruction (2007-09) of the Department of Civil and Environmental Engineering. He is a co-founder of the American University of Armenia, an affiliate of the University of California, and served as its Founding Dean of Engineering (1991-2007) and Interim Provost (2011-2012) concurrently with his Berkeley position, and as President (2014-2019, 2022-2023) after retiring from UC Berkeley. He has authored more than 400 publications, including two books, four edited books, and more than 130 papers in archival journals. Among other awards, he is a recipient of the American Society of Civil Engineer's Walter L. Huber Civil Engineering Research Prize, Alfred M. Freudenthal Medal, Thomas A. Middlebrooks Award, and George Winter Medal; the Government of Armenia's Movses Khorenatsi Medal and the Saint Sahak-Saint Mesrob Medal, presented by His Holiness Garegin II, Supreme Patriarch of All Armenian, for his efforts in advancing higher education in Armenia. He is an elected member of the U.S. National Academy of Engineering and an elected foreign member of the National Academy of Sciences of Armenia. He is a Distinguished Alumnus of Tehran University, Iran, where he received his B.Sc. and M.Sc. in Civil Engineering, and of the University of Illinois at Urbana-Champaign, where he received his Ph.D. in 1975.

**Challenges in Future Development of Structural Reliability Methods.** A variety of methods for assessment of structural reliability and for reliability-based optimal design have been developed in the past fifty years. Among methods in current use are first- and second-order reliability methods (FORM and SORM), various efficient simulation methods, and surrogate-modeling methods. After a short review of these methods, this lecture will focus on the existing challenges in applying these methods to complex real-world problems characterized by nonlinearity, stochastic dynamics, multi-phase interactions, and having high computational demand. The lecture will hopefully provide motivation to young researchers to pursue research and development in addressing some of these challenges.

**FAZLUR RAHMAN KHAN** (1929 - 1982) One of the foremost structural engineers of the 20th century, Fazlur Khan epitomized both structural engineering achievement and creative collaborative effort between architect and engineer. Only when architectural design is grounded in structural realities, he believed — thus celebrating architecture's nature as a constructive art, rooted in the earth — can “the resulting aesthetics ... have a transcendental value and quality.” His ideas for these sky-scraping towers offered more than economic construction and iconic architectural images; they gave people the opportunity to work and live “in the sky.” Hancock Center residents thrive on the wide expanse of sky and lake before them, the stunning quiet in the heart of the city, and the intimacy with nature at such heights: the rising sun, the moon and stars, the migrating flocks of birds. Fazlur Khan was always clear about the purpose of architecture. His characteristic statement to an editor in 1971, having just been selected Construction's Man of the Year by *Engineering News-Record*, is commemorated in a plaque in Onterie Center (446 E. Ontario, Chicago): “*The technical man must not be lost in his own technology. He must be able to appreciate life; and life is art, drama, music, and most importantly, people.*”



**1 PDH will be awarded to eligible attendees for each lecture  
(minimum webinar participation time of 55 minutes is required)**

Please contact the Khan Chair office at 610-758-6123 or Email: [infrk@lehigh.edu](mailto:infrk@lehigh.edu) with any questions.