



Ross B. Corotis

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. For more information on Fazlur R. Khan please visit: <http://www.fazlurrkhan.com>



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.



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Spring 2012 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: DAN M. FRANGOPOL

Fazlur Rahman Khan Endowed Chair of Structural Engineering and Architecture
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Ross B. Corotis

Denver Business Challenge Professor of Engineering, University of Colorado at Boulder
"Natural Hazard Risk: Public Perceptions & Political Perversities"

Friday, February 17th, 2012 – 4:10 pm

Location: Sinclair Lab Auditorium, Lehigh University, 7 Asa Drive, Bethlehem, PA
<http://www.lehigh.edu/frkseries>

Ross B. Corotis, PE, NAE, Denver Business Challenge Professor of Engineering, University of Colorado at Boulder: Professor Ross B. Corotis has research interests in the application of probabilistic concepts and decision perceptions for civil engineering problems, and in particular to societal tradeoffs for hazards in the built infrastructure. His current research emphasizes the coordinated roles of engineering and social science with respect to framing and communicating societal investments for long-term risks and resiliency. With his degrees from MIT, he was on the faculty at Northwestern University for 11 years, established the Department of Civil Engineering at The Johns Hopkins University, where he was also Associate Dean of Engineering, and was Dean of the College of Engineering and Applied Science in Boulder. He has numerous research, teaching and service awards, chaired several committees on structural safety for ASCE and ACI, was Editor of the international journal *Structural Safety* and the ASCE *Journal of Engineering Mechanics*, and chaired the Executive Committee of the International Association for Structural Safety and Reliability. For The National Academies he served on the Building Research Board, the steering committee of the Disasters Roundtable, and chaired the Assessment Panel for the NIST Building and Fire Research Laboratory. He is the founding chair of the Committee on NIST Technical Programs, and Past Chair of the Civil Engineering Section of the National Academy of Engineering. He is a registered professional engineer in Illinois, Maryland and Colorado, a registered structural engineer in Illinois, and a Distinguished Member of ASCE. He is the author of more than 200 publications.

Natural Hazard Risk: Public Perceptions & Political Perversities: Probabilistic analysis and engineering modeling clearly demonstrates the positive payback associated with structural design incorporating robustness against natural hazards. This is clear for new construction, but also for retrofit in many situations. Yet throughout the world, including in the United States, policy makers continue to undervalue considerations of natural hazards in their long-term planning, both at the community level and the individual structural level. This shortcoming lies with the engineers and risk professionals; not in their analyses and capabilities, but in their unwillingness to incorporate public perceptions of risk and political process rationality, and thence in their inability to communicate and convince decision makers to spend limited, precious funds now so as to perhaps avoid costly expenses at some far off, undetermined time in the future. The lecture will address strategies that are appropriate to address this natural dichotomy.

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."** For more information on Fazlur Rahman Khan please visit: <http://www.fazlurrkhan.com>

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