



Jon D. Magnusson

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.



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Spring 2014 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
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Jon D. Magnusson

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“Structure Becoming Architecture: Case Studies of Aesthetics, Form, and Efficiency”

Friday, March 21st, 2014 – 4:30 pm

Location: Sinclair Lab Auditorium, Lehigh University, 7 Asa Drive, Bethlehem, PA

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

Jon Magnusson is Senior Principal at Magnusson Klemencic Associates consulting structural/civil engineers with offices in Seattle, Chicago, Shanghai, and Riyadh. The 175-person firm has provided engineering services for projects in 47 states and 51 countries. Many consider MKA as one of the most creative engineering firms in the United States. Under Jon's leadership, the firm has been recognized by the American Council of Engineering Companies (ACEC) with 25 national engineering excellence awards in the last 27 years. Jon is a licensed professional engineer in 24 states. He is a Fellow in IStructE, an Honorary Member of the national American Institute of Architects, a Distinguished Member of ASCE, and was recently honored by the American Institute of Steel Construction with a Designer Lifetime Achievement Award.

Structure Becoming Architecture: Case Studies of Aesthetics, Form, and Efficiency: Architects are exploring forms and aesthetics that were impossible to realize as recently as ten years ago. Today almost anything appears possible.

This presentation will explore how many “impossible dreams” were conceptualized, designed, and built. From the swoopy curves of Frank Gehry's Experience Music Project to the crisp angularity of the Rem Koolhaas Seattle Central Library...architects are truly exploring the boundaries of the possible. Each of these projects succeeded by creating a different set of engineering solutions ranging from inventing new structural systems to advanced construction methodology to seismic isolation. The presentation will finish with a look to the future with another generation of exotic architecture pushing technology forward.

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.”**