



GLENN R. BELL

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 2015 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

dan.frangopol@lehigh.edu, www.lehigh.edu/~dmf206

GLENN R. BELL

Chief Executive Officer, Simpson Gumpertz & Heger Inc., Waltham, MA

"Structural Engineering at Mid-21st Century: Reengineering Our Roles"

Friday, March 20, 2015 – 4:30 pm

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

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

Glenn R. Bell has been with Simpson Gumpertz and Heger since 1975, starting as a design structural engineer and assuming his current role as CEO in 1995. Glenn has had responsibility for major design works such as SpaceShip Earth, the geodesic sphere at Walt Disney World Epcot Center, and the Aga Khan Medical Complex in Karachi Pakistan. He also has led major structural failure investigations such as the walkways collapse at the Kansas City Hyatt Regency and served as an advisor to SGH's team that investigated the 9/11 WTC 1 & 2 Tower Collapses for NIST.

Glenn has twice presented invited keynote addresses at Structures Congresses in the US. He helped to found the ASCE Technical Council on Forensic Engineering, and has been active in seismic code development, masonry design standards, and various aspects of professional practice. For his professional contributions globally, Glenn recently was honored by the Institution of Structural Engineers by admission to Fellow grade through IStructE's Eminent Professionals program and received the Edmond Freidman Professional Recognition Award from ASCE.

Under Glenn's leadership SGH has grown from 140 to over 470 employees and from two to six offices, and is frequently recognized as one of the best structural engineering firms in the US for which to work.

Structural Engineering at Mid-21st Century: Reengineering Our Roles: Tectonic developments, such as globalization, energy and sustainability imperatives, advances in automation and technology, economic pressures, changes in natural hazards due to climate change, and the dizzying pace of information dissemination are changing the profession of structural engineering as we know it. The continuation of such developments over the next several decades will create challenges and opportunities that will require that we reengineer our roles if we are to maintain a vibrant profession, to continue to attract the best and brightest practitioners, and to remain relevant in serving society as we have in the past.

The successful structural engineer of the future will be a global practitioner, able to collaborate with team members around the globe and with strongly transportable technical skills. She will be very creative and inventive and a continuous learner, aligned with academia, research, and code development. She will be adaptable, able to manage uncertainty and to help others make sound decisions in the face of it. This inspiring, reengineered role for structural engineers will result in ever more elegant and higher performing structures.

In this lecture, Glenn Bell will explore this reengineered role for the structural engineering profession, illustrated with examples of projects, strategies, and new capabilities his firm and others are employing to meet this future vision.

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."**



**** New for 2015 ****

1 PDH will be awarded to eligible attendees for each lecture

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