

Presentations will be held  
 in Whitaker Lab 303 at  
 Lehigh University  
*Receptions to precede  
 events starting at 4:10 P.M.*

Friday, February 22, 2019  
 4:30 P.M.

*Kishor C. Mehta*

P. W. Horn Professor of Civil,  
 Environmental and Construction Engineering  
 Texas Tech University  
 Lubbock, TX



#### EVOLUTION OF ASSESSMENT OF WIND SPEEDS IN TORNADOES

Tornadoes are windstorms that are unpredictable and short lived. As a result it is difficult to put wind measuring instruments in the path of a tornado. Wind speeds in tornadoes are assessed with indirect methods of physical evidence of damage or with remote sensing. This presentation discusses evolution of assessment of wind speed in tornadoes since 1970. In particular, it traces engineering bases estimated (calculated where possible) wind speeds from damage, the development of F-scale by Dr. Ted Fujita in 1970 and its enhancement into EF-scale in this millennium. The presentation also describes current efforts to improve EF-scale and current/future efforts in remote sensing procedures using radar.

Friday, March 29, 2019  
 4:30 P.M.

*SawTeen See*

President  
 See Robertson Structural Engineers, LLC  
 New York, NY



#### SOME LONG-SPAN AND SOME TALL BUILDINGS BY SAWTEEN SEE

SawTeen See, a structural engineer with 40 years' experience, will share some of the highlights of her collaborations with architects in the design of pedestrian bridges, museums, convention centers, and some of the world's tallest buildings. She will discuss projects such as the AIG pedestrian bridge in Hong Kong, the NASCAR Hall of Fame in Charlotte, NC, the Baltimore Convention Center Expansion, the 492m Shanghai World Financial Center, the 555m Lotte World Tower in Seoul (the 5th tallest in the world), the 644m PNB 118 tower under construction in Kuala Lumpur, and innovations for some super high-rises of the future.

Friday, April 12, 2019  
 4:30 P.M.

*Karl H. Frank*

Consultant and Professor Emeritus  
 The University of Texas at Austin  
 Austin, TX



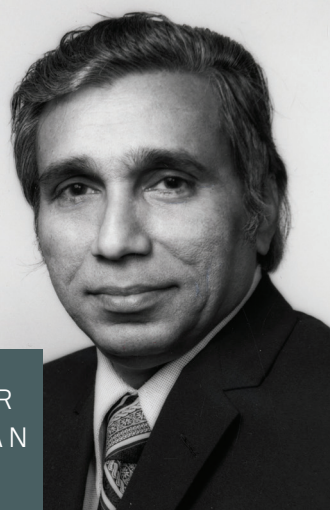
#### THE ROLE OF QUALITY CONTROL IN SOME NOTABLE BRIDGE PROBLEMS

The role of quality control in the problems that occurred in 3 major bridges will be presented. Often quality control of bridge structures is solely concerned with the quality of the contractors building the bridge. Quality control in the design office is also critical and should not be overlooked. In addition, the designer needs to heed the warnings in the specifications when specifying products. A note on the plans while clearly written is also no guarantee of quality if they are not enforced during fabrication. A tale of 3 bridges illustrating the importance of the control of quality from design, material selection, and through to fabrication will be presented.

## ABOUT THE KHAN SERIES

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 Willis (formerly Sears) Tower – the tallest building in the United States since its completion in 1974.

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 inaugural 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.



FAZLUR  
 RAHMAN  
 KHAN

*This lecture series is sponsored by:*

Civil & Environmental Engineering;  
 College of Engineering & Applied Science;  
 Art, Architecture & Design;  
 College of Arts & Sciences



**1 PDH will be awarded  
 to eligible attendees  
 for each lecture.**

[www.lehigh.edu/frkseries](http://www.lehigh.edu/frkseries)