Structural Engineering Seminar Series

CEE595S

Why things fall down:
Failure analysis of engineered structures

Dr. Falak Shah
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Abstract: Engineers learn from history. We use the knowledge gleaned from past failures—or performance issues—to develop better codes, designs, methodologies, and techniques for future systems. Exponent is a multidisciplinary engineering and scientific consulting firm that specializes in investigating the failure of engineered systems. In this seminar talk, I will present case studies of failures examined by Exponent to show the types of engagements Exponent undertakes as well as the types of challenges consultants must overcome when given limited resources (in the form of time, money, or information) and facing client demands. Highlighted will be the key ingredient in Exponent's approach to analyzing these cases: a hypothesis-driven adherence to the scientific method. Through this presentation, I hope you discover the basic elements of a career in consulting that allows you to take advantage of the engineering, analytical, and interpersonal skills you learn in school to make an impact.

Bio: Falak Shah is a Chicago-based consultant with Exponent, a multidisciplinary organization of scientists, physicians, engineers, and regulatory consultants. Falak specializes in solving complex engineering problems involving failures of structures and structural materials. At Exponent, he has assisted legal, insurance, and corporate clients on matters involving a wide range of industries—including construction, mining, transportation, energy and utilities, manufacturing, and consumer products. Falak completed his doctoral studies at the Georgia Institute of Technology, specializing in structural engineering; he holds an undergraduate degree in civil engineering from the University of Florida. As you'll find out in the presentation, he holds a special place in his heart for the University of Illinois.

Monday, March 11th, 4:00-5:00pm
1310 Yeh Student Center