

The Technology Commercialization Speaker Series



John Hillman, PE, SE

Senior Associate

Teng & Associates

Chicago, IL

Building Better Bridges with Hybrid-Composite Beams

Tuesday – October 26, 2010
3:30 - 4:30 pm

Refreshments available at 3:00 pm

Location:

Transportation Center –Lower level
Northwestern University
Chambers Hall - 600 Foster
Evanston, IL

Please RSVP to rachel-miller@northwestern.edu

BIO: John R. Hillman, PE, SE is a Senior Associate with Teng & Associates, Inc. in Chicago and is also Founder and President of HC Bridge Company, LLC. Mr. Hillman has been employed as a structural engineer in the inspection, construction and design of unique bridges for over 24 years. Mr. Hillman has been intimately involved in the design of numerous award winning structures including his role as conceptual designer and project manager for the 35th Street Pedestrian Bridge over Lake Shore Drive. He also holds two patents for the unique bridge technology known as the Hybrid-Composite Beam (HCB). His work on the development of the HCB has brought worldwide recognition, and most recently Mr. Hillman was honored with the 2010 Engineering News Record – Award of Excellence.

About the Hybrid-Composite Beam: The "Hybrid-Composite Beam" (HCB), is a new type of structural member developed for use in bridges and other structures. The HCB is comprised of three main sub-components that are a shell, compression reinforcement and tension reinforcement. The shell is comprised of a fiber reinforced plastic (FRP) box beam. The compression reinforcement consists of concrete which is pumped into a profiled conduit (generally an arch) within the beam shell. The tension reinforcement consists of carbon, glass or steel fibers anchored at the ends of the compression reinforcement. The HCB combines the strength and stiffness of conventional concrete and steel with the lightweight and corrosion advantages of advanced composite materials. Three HCB bridges are currently in service with a fourth under fabrication now. Numerous deployments for 2010 are under design representing a diverse range of applications.

About CCITT: CCITT is a University Transportation Center funded by the Research and Innovative Technology Administration of USDOT operated within the Northwestern University Transportation Center in the Robert R. McCormick School of Engineering and Applied Science. CCITT's mission is to foster the implementation of innovative technologies for multiple modes of surface transportation including, but not limited to, railways, mass transit, highways and waterways by funding to Northwestern faculty to pursue "innovation gap" research projects. (<http://www.ccitt.northwestern.edu>)