

Best Presentations at 2008 SEI Structures Congress

Millau Viaduct and BIM Technology

As at each Congress, at the 40th SEI/ASCE Structures Congress in Vancouver, BC, participants cast ballots to select the presentation they found to be the “Best of the Best” of the Congress presentations. With more than 90 sessions and 300 presentations there was a great deal to choose from. This year there were two co-winners for best presentation: *BIM Technology, Crossing Design and Construction Team Boundaries* by William F. Ikerd, II, P.E., Dallas, Texas, and *Millau Viaduct – the Highest Vehicular Bridge in the World* by Michel Virlogeux, D.Engr., France.

“Building Information Modeling (BIM) is going to fundamentally change our industry”

By Caleb Hing, Ph.D.

When informed that he was voted co-winner of the Best Presentation Award, Mr. Ikerd remarked, “I was pleasantly surprised mixed with a sense of validation that the work I presented was meaningful to my peers. It’s an honor to win this award.”

The presentation allowed him to educate his fellow peers within the field of structural engineering. “I think the presentation created an awareness for the importance of this issue for those who are new to the topic, and provided a deeper understanding for those who are already addressing the issues related to integrated practice with BIM. I believe that our profession is starting to see the importance of BIM and its impact on our industry. I think that is why this topic and presentation were so well-received.” In fact, Ikerd believes the content of the presentation won the award for him, not necessarily the way he delivered the message. He also noted that there was a lively discussion toward the end of the presentation. “While the content that I had prepared was necessary to deliver a meaningful presentation, I wish there had been more time for discussion.”

As an active advocate for BIM as well as the instructor for one of the first classes in the country to incorporate BIM with structures into their undergraduate engineering curriculum at the University of North Texas Construction Engineering Department, Ikerd believes that advancement in technology and demands to improve efficiency in project delivery are primary reasons why the industry will shift toward BIM utilization in the near future. “BIM is going to fundamentally change our industry.” ■



Will Ikerd, P.E., C.W.I. is Director of the INTERTECH Design, Inc. Department of Advanced Building Design (ABD) focused on BIM in structural engineering. Mr. Ikerd is currently on the National BIM Standards committee and has also been appointed Chair of SEAoT’s State IT Committee on BIM in Structural Engineering. He is invited to speak and author articles on BIM & EDI related topics in various venues and sits on the advisory board for the University of North Texas Construction Engineering Department where he teaches one of the first classes in the country to incorporate BIM into their undergraduate and graduate structural design and construction curriculum. Will Ikerd can be contacted at Will@ikerd.com.



Millau Viaduct – Design and Construction of the World’s Highest Vehicular Bridge

By David Harvey, P.Eng., Struct.Eng, CEng, FStructE, FICE, FASCE

Dr. Michel Virlogeux gave an engaging presentation on the design evolution of the Millau Viaduct, the world’s highest vehicular bridge. Amazingly, his initial concept bore striking similarity to the final design. Virlogeux described the delicate process of developing the design in conjunction with architect Norman Foster. Both architect and engineer had key points of influence on the final design, a testimony to their mutual respect of each other’s capabilities.



Virlogeux provided a remarkable description of the many aspects of the viaduct's fabrication and erection, including: the massive temporary towers; launching the 2.5 km-long box girder, using hydraulic rams from each end to meet near the middle; and delicately lifting the 87 m high, 700 ton masts from the horizontal to their vertical positions above the intermediate piers.

The presentation provided real insight into the complex process of creating this most inspiring landmark structure, which has focused much public attention on the work of structural engineers. His talk was well received and much appreciated by the audience of Structures Congress delegates. ■

Dr. Virlogeux has received numerous awards and recognition for his contributions in the field of civil engineering, in particular through the development of external pre-stressing, landmark cable-stayed bridges, and composite structures.

In 1974, he joined the Bridge department of SETRA, the technical service of the French Highway Administration. In 1980, he became head of its Large Concrete Bridge Division, and in 1987 of its Large Bridge Division, Steel and Concrete. Over 20 years, he designed more than 100 bridges, including the Normandy Bridge, which held the world record for several years. Since 1995, when he left government service and became an independent consultant, his achievements have grown to include construction of the Second Tagus Crossing in Lisbon and design of the Millau Viaduct in France. He is a member of the French Academy of Technologies and a Fellow of the Institution of Structural Engineers.

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