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PRESS RELEASE

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The 2008 IABSE Outstanding Paper Award to: Philippe Menétrey and Eugen Brühwiler, Switzerland

The IABSE 2008 Outstanding Paper Award has been conferred to Philippe Menétrey and Eugen Brühwiler for their Paper:

“Design and Experimental Investigation of the Joints of Inclined Struts for the Widening of Bridge Deck Slabs”

published in Structural Engineering International (SEI) November 2008, pages 337 – 342

The IABSE Outstanding Paper Award is presented each year in recognition of an outstanding paper published in the IABSE Journal *Structural Engineering International*, encouraging and rewarding contributions of the highest quality. This time, the Outstanding Paper Award Committee was chaired by Professor John C. Miles, United Kingdom.

The widening of existing bridge deck slabs using inclined struts has been found to be an efficient solution. The design of the joints linking the strut respectively to the deck slab and the web of the box with limited penetration or perforation of the existing structure is of particular interest in this paper. Five different original strut joint details were developed and experimentally investigated for three different strut inclinations. These joints were fabricated using fiber reinforced mortar as well as steels plates and cylindrical studs and blades penetrating into the cover concrete.

The test results showed that strut joint details with some penetration into the cover concrete provide significant strength and deformational behavior, and show much better structural performance than strut joint details relying only on friction at the interface surface. Also, the ultimate resistance decreases with the increasing joint inclination.

Finally, it is shown that existing design criteria match the results obtained with the strut joint details relying on surface friction. However, as soon as the strut joint details penetrate into the cover concrete, the design criteria underestimate the strength and an improved design criterion is proposed.

President of IABSE, Jacques Combault, will present the Award on September 9, 2009, at the Opening Ceremony of the 33rd IABSE Symposium in Bangkok, Thailand.



The International Association for Bridge and Structural Engineering (IABSE) comprises 4'000 members in 100 countries. Founded in 1929, IABSE deals with all aspects of planning, design, construction, maintenance and repair of civil engineering structures. To fulfil its mission, IABSE organises conferences and publishes a quarterly journal, Structural Engineering International, as well as books and reports. The Association has a number of technical groups and presents awards in recognition of outstanding contributions in the domain of structural engineering.

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