Katedra mechaniky Stavební fakulty ČVUT v Praze Department of Mechanics, Faculty of Civil Engineering, CTU in Prague Erasmus Mundus Advanced Masters in Structural Analysis of Monuments and Historical Constructions

si Vás dovoluje pozvat na / would like to invite you for

Seminář / Seminar

Seminář proběhne v pátek 24. května 2013 od 10:00 do 11:00 místnosti B366 v budově Fakulty stavební ČVUT v Praze Thákurova 7, 166 29 Praha 6

The seminar will be held on Friday, May 24, 2013 from 10:00 to 11:00 in room B366 at the Faculty of Civil Engineering, CTU in Prague Thákurova 7, 166 29 Praha 6

Thermal fatigue of interface between concrete and adhesive mortar in external wall tile structure

Assoc. Prof. Takashi Matsumoto, Ph.D.

Hokkaido University

External wall tile is a typical exterior of buildings in Japan, and sometimes delamination and fall-off of wall tiles are observed. Interface between concrete and adhesive mortar is often found as a failure location, and this delamination is considered to be a thermal fatigue problem. In order to clarify the mechanism of delamination, thermal monotonic and cyclic loading experiment and finite element analysis with interfacial constitutive laws implemented are conducted. Thermal loading experiments are analyzed, and thermal fatigue life is estimated. Finally, some parametric studies on mortar properties are conducted.



Dr. Takashi Matsumoto is currently an associate professor of Division of Engineering and Policy for Sustainable Environment at Hokkaido University, Japan. He graduated from Department of Civil Engineering at University of Tokyo, Japan in 1992, and he received Ph.D. in Civil Engineering at University of Michigan, USA in 1998. His research interest is in the maintenance of bridges and structures utilizing fracture mechanics and micromechanics. Especially, his focus is on the theoretical modeling of fracture and fatigue mechanisms of composite materials and structures. Presently, he is visiting the Czech Technical University as a guest lecturer in the Erasmus Mundus program, Advanced Masters in Structural Analysis of Monuments and Historical Constructions.

> Pro více informací prosím kontaktujete / For more information please contact: prof. Petr Kabele <petr.kabele@fsv.cvut.cz>, tel. 22435 4485