



International Doctoral Program in Civil and Environmental Engineering

SEMINAR

Inspired by nature Discover and research your own bionic building element

Prof. Andreas Hammer

Prof. Dipl. - Ing. Andreas Hammer R.I.B.A. + B D B

Location:

Aula Magna UNIPG Campus of Engineering Via G. Duranti, 93, Perugia

Timetable:

June 30th 14.00 - 17:00 (CET) July 1st 14.00 - 17:00 (CET)

Issue

Rising energy costs are becoming an increasing problem and the focus of public debate. Reducing the considerable energy consumption of buildings contributes greatly towards the solution of this problem. By taking over nature's ideas and transferring them into technical building parts, we might be able to achieve more sustainable, reliable and longer-lasting buildings.

The PhD-students are asked to spot one building element, which can be part of the skin (roof and façade), the loadbearing structure, an interior wall or ceiling part (e.g. acoustics- sound absorption, or physics – _heat absorption) or a detailed spot of the before mentioned topics and research on the nature-to-building-transfer.

Target

Increasing the awareness of nature's highly efficient systems and how they could be implemented into nowadays architecture and building industries.

The PhD-students are asked to form groups of people to research the literature given and prepare a poster-presentation (A1) on screen and explain in 5 minutes the transfer-process from one object of nature into a proposal for a new building part, system, logistics e.g. and they should point out the benefit and the technical issues that need to be solved.

Kindly confirm the attendance by Friday 06/06/2025.



Andreas Hammer is Professor of Building Structures and Structural Design at SRH University Heidelberg. Born in Ludwigsburg and raised in Bad Rappenau in the beautiful Swabian countryside, he studied architecture from 1988 to 1994 at the University of Stuttgart and at Heriot-Watt University in Edinburgh, Scotland. After working for several years as an architect in various architectural firms, he worked on and managed numerous international projects at Foster & Partners in London, including the Zenith Concert Hall in Saint-Étienne, France, the Walbrook commercial building in the City of London, the ATC Advanced Training Centre for EMBL in Heidelberg, Germany, the LEIZA-Leibnitz Centre for Archaeology in Mainz, Germany, and other major construction projects. His research interests include "simple" construction, bionic-inspired construction and innovative construction approaches. He is currently working on a Zukunft Bau project funded by the German Federal Ministry of Construction, entitled 'Flectocollect', which is researching a sustainable and efficient climate-active shading system.





