

OSKAR VON MILLER FORUM

Press release

Rethinking Architecture Interfaces between Biology and Digital Building

A lecture by Achim Menges, Institute for Computational Design (ICD) / University of Stuttgart, on 22 November 2018 at 6:30 p.m. at the Oskar von Miller Forum

A look at nature helps architects rethink building. Biology offers us a virtually inexhaustible supply of formal, functional and process principles. Many of them challenge established approaches pursued in construction technology in surprising ways or in fact demonstrate entirely different possibilities. In his lecture, Achim Menges will explain how a bionic approach in architecture enables scientific, cross-disciplinary lateral thinking. Presenting a number of selected projects, he will also illustrate how this can lead to architecture that is effective and explorative, efficient and expressive.

The Institute for Computational Design (ICD) researches the ever-accelerating permeation of digital processes in architecture covering ever more areas of design, planning and building, to help understand them as a creative, design, ecological, economic and intellectual challenge for architects.

The ICD pursues two major lines of research: One of them is the theoretical and practical refinement of generative, computer-based design processes and related applications. A main focus is on the integration of the interplay of form, material, structure and the environment in computational design for architectural design processes. Another area of research is integrative use of computer-controlled manufacturing and construction processes in architecture with a special focus on the robotic production of performative material and construction systems. These two key areas are interlinked by research into the design, process and action principles of biological systems and their transfer to construction engineering.

About

Achim Menges is a Frankfurt-based architect and a professor at the University of Stuttgart, where he is head of the Institute for Computer-Based Design (ICD), which he established in 2008. He was a guest professor at Harvard University (Cambridge, Massachusetts, USA) from 2009 to 2015.

Achim Menges received his degree from the Architectural Association in London. In his research and practical activities, he studies integrative, computer-based design methods at the interface between architecture, computer-based design, robotic manufacturing and biomimetics. Achim Menges has authored a large number of scientific publications and books. His research and project work has earned him several international awards, many of which have featured in international exhibitions.