

**THE CENTRE FOR PATTERN ANALYSIS AND MACHINE INTELLIGENCE IN ASSOCIATION WITH
IEEE COMPUTATIONAL INTELLIGENCE CHAPTER OF KW SECTION PRESENTS:**

Implicit Space – Designing Through Correlations

Speaker: Professor Christian Derix, Director, Computational Design Research Group (CDR) of Aedas Architects, London, UK

Date: Tuesday December 3, 2013

Time: 2:00 pm – 3:00 pm

Place: University of Waterloo, E5-5106-5128

Abstract:

Computation in architecture is mainly perceived to be concerning itself with formal and structural aspects while spatial questions are rarely debated.

The Computational Design Research group [CDR] at Aedas architects, has concentrated from its inception in 2004 on using computation to reveal qualities of space that can be instrumentalized for design. Different perspectives of user behaviours from design heuristics to spatial navigation are analysed and encoded for the design process. The talk will show those user-centric design models and more experimental work looking at associative networks which enable autonomous representations of space.

Biography:

Christian Derix is director of the Computational Design Research group [CDR] of Aedas Architects, which he founded in 2004 in London, UK. CDR develops computational simulations for generative and analytical design processes with an emphasis on spatial configurations and human occupation. Derix studied architecture and computation in Italy and the UK and has researched and taught the subject at various European universities since 2001, including University College London (UCL), Milan Polytechnic, Technical University Vienna, guest professor at Technical University Munich while currently associate professor at IE University Madrid and visiting professor at the University of Sheffield. He set up the Centre for Evolutionary Computing in Architecture (CECA) with Paul Coates at the University of East London in 2002.

The work of CDR has recently won award commendations for their Spatial Simulation framework such as the 2010 Presidents Medal for Research in Practice of the Royal Institute of British Architects (RIBA), the 2011 Italian Compasso d'Oro for algorithmic design and user participation in industrial design for the VITA Shelving System or the Centre for Tall Buildings and Urban Habitat's (CTBUH) 2012 Innovation award for the computer-activated responsive façade of the Al Bahar towers.