



Disputas: Tomasz Estkowski

Ph.d.-kandidat Tomasz Estkowski forsvare sin doktoravhandling "Towards a Generative Design System Based on Evolutionary Computing" for ph.d.-graden ved AHO mandag 28. april. Disputasen vil foregå på engelsk.

- Prøveforelesning kl. 10: State-of-the-art computer-assisted creative design seen in relation to designers' expertise
- Disputas kl. 12

Om avhandlingen (kun engelsk)

This thesis proposes elements and principles for a digital generative design system, which involves evolutionary computing. The functioning of the system is based on an analogy between a design process and a process of natural evolution. The design system based on natural evolution seems especially appropriate in the early stage of a design process, where architects explore design possibilities by testing a number of different versions of design. The proposed generative design system is meant to support architects by generating different versions of building models, whose automatic development is guided by design objectives inputted by a system's user. Evolutionary computation has been selected as the guiding programming approach for this project because of its high generative and creative potential, and its flexibility in terms of application. This thesis investigates four prototypes of a generative design system, concluding that they are fragmented. The main claim of the thesis is that a design system, in order to function, has to take into consideration a wide variety of design aspects (social, environmental, economic), as defined in the guidelines of sustainable development.

Om kandidaten

Tomasz Estkowski (1978) holds MSc in Architecture and Urban Planning. He has been working as a professional architect and urban planner since 2003. His professional work ranges from urban planning and large-scale developments to detailed architectural design, including retail centers, hotels and multifamily houses. His research interests lie at the intersection of architecture and computer science.

Bedømmelseskomité:

- PhD Lic.Arch. Harold Nelson, President of Advanced Design Institute, Fairfax, California, Senior Lecturer, Montana
- Dr. Branko Kolarevic, Professor and Chair in Integrated Design, Faculty of Environmental Design, University of Waterloo
- PhD Ole SmørDAL, Academic Director of EngageLab, Faculty of Educational Sciences, University of Oslo

- Dato: 28.04.2014
- Tid: 10:00 - 15:00
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