

Digital Processing for Academics (digi-pro)

Project Type Teaching

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Questions and Content

"Digital Processing for Academics" (short: "digi-pro") is a project funded by the European Social Fund (ESF) based on a modular course program. The project focuses on developing skills for innovative drafts and designs in the fields of architecture, design, and engineering. The course relies on a complex interactive process of developing both physical and digital prototypes. "digi-pro" builds on previous knowledge and experience with basic CAD-classes.

Use and Target Audience

The classes are continuously being re-assessed and redeveloped on demand from the industry and job market. The aim is to offer the participants a professional development of their current qualifications, which is up to date with the latest developments of the industry and thus bettering job prospects. The course is targeted towards students as well as graduates and professionals who are looking to connect theoretical knowledge to practical applications.

Publications

Ilija Bentscheff, Christoph Gengnagel (2010): "Towards Teaching Generative Design in Architecture," In: *Advances in Architectural Geometry*, Springer, Berlin, Heidelberg, pp. 113–128.

Julien Nembrini, Steffen Samberger, André Sternitzke, and Guillaume Labelle (2011): "The potential of scripting interfaces for form and performance systemic co-design," In: *Computational Design Modeling Proceedings of the Design Modelling Symposium Berlin 2010*, Springer, Berlin, pp. 161–169.

Max Dölling, Farshad Nasrollahi (2012): "Building Performance Modeling in Non-Simplified Architectural Design – Procedural and Cognitive Challenges in Education," In: H. Achten, J. Pavlicek, J. Hulin, D. Matejdan (eds.): *Digital Physicality – Proceedings of the 30th eCAADe Conference*, volume 1, Czech Technical University in Prague, Faculty of Architecture, pp. 97–106.

Julien Nembrini, Steffen Samberger, André Sternitzke, and Guillaume Labelle (2012): "Combining sensitivity analysis with parametric modeling to inform early design" In: *Simulation for Architecture and Urban Design, simAUD*.

Hans-Georg Bauer, Julien Nembrini, Steffen Samberger, and Christoph Gengnagel (2013): "Assessing renovation interventions towards 'energy plus' buildings through parametric exploration – the case of glazed buffer spaces," In: *IBPSA Building Simulation 2013*.

Max Dölling, Farshad Nasrollahi (2013): »Parametrisches Entwerfen, Energie- und Stoffströme« In: *Parameter des Entwerfens – Architektur und Nachhaltigkeit*, TU Berlin, Universitätsverlag, pp. 72–85.

Julien Nembrini, Steffen Samberger, and Guillaume Labelle (2013): "Parametric Scripting for Early Design Performance Simulation" In: *Energy & Buildings*, vol. accepted.

Steffen Samberger, Julien Nembrini, and Christoph Gengnagel (2013): "Climate-specific mass-customization of low-technology architecture as part of a high-technology process" In: *Rethinking Prototyping – Proceedings of the Design Modelling Symposium Berlin 2013*, pp. 377–391.

Support from the Hybrid Plattform

Placement of partners and public relations