ONE YEAR AT THE FUTURE CITIES LABORATORY IN SINGAPORE
Two semesters focussed on the Design of Robotic Fabricated High Rises

The Design Research Studio of the professorship for Architecture and Digital Fabrication of Fabio Gramazio and Matthias Kohler will again take place at the Future Cities Laboratory in Singapore from January to November 2013. The laboratory has a unique environment neighbouring international institutions such as MIT, TUM and NUS.

The studio 2013 will be organised in collaboration with the National University of Singapore (NUS). It investigates potential implications of robotic fabrication processes to the construction and design of high rise buildings. The urban context is characterised by rapid population growth on limited available land. In Singapore this has led to an increase in the construction of high rises, to further densify the urban fabric. This specific scenario serves as a test bed for conceived high rises. Prefabrication strategies have proven successful to guarantee high building standards and short build up cycles in this context. However, current technologies still favour the construction of repetitive building elements and thus lead to rather uniform housing projects.

Throughout a year, the Design Research Studio will identify strategies on a conceptual and technical level and investigate possible impacts on contemporary design of high rises. The studio has set itself the goal to find alternatives to monotonous building strategies, and to develop methods towards novel differentiated multi-functional high rise typologies, which will be informed by cutting edge robotic research in architectural computation and materialisation.

Students will be able to integrate their gained skills in programming, fabrication and design in different fields ranging from concepts of industrialised fabrication of unique architectural components to large-scale sustainable planning and building construction.

Program structure:
The Design Studio will start in January 2013 and end in November 2013, equal to two full semesters of study at the ETH Zurich. Students who successfully complete the entire Design Research Studio can receive up to a Maximum of 56 KP. Due to the overall goal of the studio and required development of skills, participants must take part in all courses.

- 2 semesters design project, Architecture and Digital Fabrication’ 2 x 13 ECTS
- 2 semesters integrated disciplines 2 x 3 ECTS
- 2 semesters elective course / ’Wahlfach’ 2 x 4 ECTS
- 2 semesters elective course / ’Wahlfacharbeit’ 2 x 6 ECTS
- 2 semesters seminar week 2 x 2 ECTS

ETH students will be registered as guest students of National University of Singapore (NUS) during their stay in Singapore. The credits will be received from ETH.
Design of Robotic Fabricated High Rises
Prof. Fabio Gramazio, Prof. Matthias Kohler

Location:
CREATE Tower, in the newly built ‘University Town’ part of NUS campus. The Singapore ETH Centre for Global Environmental Sustainability (SEC) serves as an intellectual hub for research on all different scales of urban environments.

Registration date:
The closing date for inscribing is on the 1st of October 2012.
Please prepare a portfolio with previous work. Express your interest via email (see addresses below) and submit your material to Silke Langenberg at the Professorship for Architecture and Digital Fabrication, ETH Zurich Building HIL, Floor F.56, Wolfgang-Pauli-Strasse 15, CH-8093 Zurich

Teaching Language:
English

Contacts for questions and information:
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Further information:
Website for course: http://www.dfab.arch.ethz.ch
Website for FCL: http://www.futurecities.ethz.ch