Mark J. Clayton PhD, Visiting Professor   Antonio Fioravanti inviting professor

Computational Design with Revit 2019 and Dynamo

18-20 December 2018 – h 14:30 – 18:00

Facoltà di Ingegneria Civile e Industriale
Via Eudossiana 18 – 00184 - Roma

DaaDgroup
Digital augmented architectural Design
www.daadgroup.org

Free form architectures are composed of thousands of components, each with unique geometry, is a hallmark of 21st century architecture. At the same time BIM - Building Information Modeling - has become a de-facto standard for achieving high performance architecture through integrating modeling, representation, and simulation.

The Dynamo visual programming tool eases the process of creating complex, curvilinear form and rationalizing it into realistic, buildable components, while preserving the power of BIM.
This short workshop provides an introduction to Dynamo for Revit users with intermediate skill. Students will learn the basic concepts in Dynamo, write simple scripts to gain practical skill, and then design a complex, free form architectural work in Revit.

Schedule

Day 1 -18 December, Tuesday – Aula 42

Dynamo concepts and user interface. Manipulating Revit objects with Dynamo. Displacing points on a conceptual mass surface. tessellation and panelization. Divided surfaces. Regular patterns. Skewed grids. Arbitrary points. Curvature.

Day 2 - 19 December, Wednesday – Aula 17

Creating facets and patches to break a surface into buildable elements. Cutting facets for assembly Structure. Struts, beams, columns, footings.

Day 3- 20 December, Thursday – Auletta affrescata del Chiostro

Architectural composition as an instance in a series. Design process. Templates. Evaluation, Competition and Prizes.

Prerequisites
Participants: intermediate level skill with Revit; proficient in English.
Revit 2019 (Dynamo is included in Revit 2019).
Results
At the end of the course participants will be able to manage simple free form surfaces.
Attendees will obtain a Certificate of Attendance and 2 CFU (University Credits).
Registration
E-mail a letter of interest to { HYPERLINK "mailto:staff@daadgroup.org" \h }. No fee is required.

Instructor
PhD Mark J. Clayton is the William M. Peña Professor of Information Management in the Department of Architecture at Texas A&M University expert in architectural computing with 30 years of experience. He is a past President of the Association for Computer Aided Design in Architecture (ACADIA) of North America, and has recently been appointed the Director of the CRS Center for Leadership and Management in the Design and Construction Industry at Texas A&M.
Dr. M.J. Clayton is also the CEO of SMARTreview Inc., a software company focused on delivering automated plan review to test a building design for compliance with regulatory requirements.