

COMPUTATIONAL FORM FINDING

Parametric Workshop | 5 Days | 14, 15, 16, 17, 24 January 2021

REGISTERATIONS OPEN

Session Overview

Powerpack 5-day Workshop designed to kickstart your journey on Parametric Architecture & Computational Design Domain.

Introduction and in-depth lessons on Rhino & Grasshopper.

Exploring the realms of Data Structure in Architecture and Computation, followed by thorough dive into plugins like **Kangaroo** & Weaverbird.

Form Finding of Designs using Algorithms, Evolution, and Mathematical Processes with Integrated Design Competition.

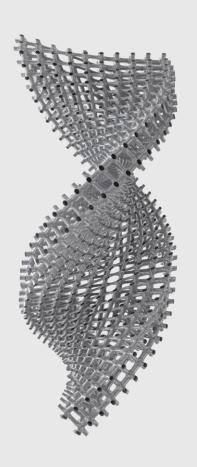
Taking methods of **Antoni Gaudi's** & **Frei Otto's** Form Finding a notch ahead through Simulation in Computational Design.

Learn about Digital Fabrication and Execution of Parametric Projects with Leading Architect in the Field.

Virtual Exhibition

The Workshop will involve the Participants Collaborating with each other and Designing a Conceptual Project with the Learned Concepts.

Followed by a Virtual Exhibition of the Projects and further, **Declaration of Winners**.



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Event Details

Topic: Parametric Architecture & Form Finding **Software:** Rhinoceros & Grasshopper 3D

Plugins covered: Kangaroo, Weaverbird, Mesh+

Duration: 5 days

Date: 14, 15, 16, 17 January 2021 **Virtual Exhibition:** 24 January 2021

Time: 11 AM to 5 PM

Mode: Online Live Interactive Sessions

Day Wise Lookup

Day 01

- •Introduction to Parametric Architecture and it's evolution.
- •Introduction to Rhinoceros 3D GUI
- Modeling Procedure
- Grasshopper GUI & Basic Functionality
- •Simple & Referenced Geometry, Locally Defined Geometry, Baking, etc.
- •Lists & Data Management
- Data Manipulation & Visualization
- Surface Tessellations
- Attractor points & curves

Day 02

- Differential Geometry Analysis
- Explorations of Patterns and Geometric Designs
- Working with Grids (Rectangular, Triangular, Hexagonal)
- Parametric Facades Explorations
- Study and development of Parametric Skyscraper Designs
- Visibility Analysis*
- Visualization & Rendering
- Documentation

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Day 03

- Introduction to Meshes
- Manipulation of Meshes
- •Form Finding Techniques
- •Simulation of Antony Gaudi's Method of suspension & designing
- Introduction to Kangaroo
- •Springs, Forces, Anchors, Solvers, etc.
- •Introduction to Weaverbird
- •Mesh Smoothening, Puncturing, etc.
- •Introduction of Design Exercise

Day 04

- •Minimal Surface Development
- •Study on Frei Otto's Soap bubble experiments
- •Lecture on Digital Fabrication
- •In-depth case studies of Parametric Projects in India
- Continuation of Design Studio

Day 05

- Design Studio Virtual Exhibition
- Design Reviews
- Announcement of winners
- Workshop Culmination



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Who Should Attend

- Architectural Students & Professionals with Parametric Aspirations
- Freshman to Computational Design Domain
- Designers wanting to test out new methods of Designing and Form Finding
- Students aiming for insights into the practical Architecture Industry
- No prior knowledge of Grasshopper/Rhino required

Registration Process

Registration process is fairly simple, register yourself on <u>www.equimdesigns.com</u> for the workshop or press the '**Register now**' button below to initiate the process.

Upon approval of your application your spot will be reserved and the same will be communicated.

Limited seats available.

Registration Charges / Entry

