

From January 27 to February 3, 2025



# diC

## [a]rch[i]tectural **COMPOSITIONS:** MERGING AI WITH INNOVATIVE DESIGN TECHNIQUES

The workshop is set in the context of the contemporary debate on the applicative potentials of AI methodologies in architectural design. The projects developed will explore the possibilities offered by a generative approach

using a proprietary dataset derived from the architectural production of the international studio **Archea Associati**. During the practical session, participants will be immersed in a new design workflow. This will not only allow for the assessment of

practical outcomes but also stimulate a debate on the results, both in terms of workflow efficiency and the quality of the final architectural composition.

Organized and curated by:  
**Fabio Gnassi**,  
PhD student ADD  
**Mattia Borrione**,  
PhD student ADD

Introducing **Prof. Paolo Caratelli**,  
Director of the Design Department at the Marangoni Institute in Dubai.

Presentations:  
• **Prof. Massimiliano Giberti**  
Associate Professor and Coordinator of the PhD program at the Department of Architecture and Design, Polytechnic School of the University of Genoa;

• **Prof. Marco Casamonti**  
Full Professor at the Department of Architecture and Design, Polytechnic School of the University of Genoa and senior executive partners at Archea Associati;

• **Arturo Tedeschi**  
Italian architect and computational designer internationally renowned for his sculptural and visionary approach.

AT THE **MARANGONI INSTITUTE IN DUBAI**, IN COLLABORATION WITH THE PHD COURSE IN ARCHITECTURE AND DESIGN AT THE POLYTECHNIC SCHOOL OF THE UNIVERSITY OF GENOA

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ID meeting (zoom): 869 0728 3250

Pass code: 270125

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The goal of the event is twofold: on one hand, it confirms the validity of the adopted architectural-design approach; on the other hand, the developed projects aim to highlight the importance of maintaining a critical and rational approach in the creative process. This combination seeks to strengthen both the theoretical and practical value of architectural design techniques assisted by artificial intelligence. The workshop will span three days.

### **First Day**, Monday, January 27

14:45 - 17:15 [2h30] (11:45 - 13:15 ITA)

Conference open to all students with possible remote participation. Guests and contributions:

- **Prof. Paolo Caratelli**, IM - INTRODUCTION AND ACKNOWLEDGMENTS
- **Prof. Massimiliano Giberti**, DAD UniGe - POINT OF VIEWPOINT
- **Prof. Marco Casamonti**, DAD UniGe - GENESIS
- **Arc. Arturo Tedeschi** - COMBINATIONAL CREATIVITY

### **Second Day**, Wednesday, January 29 *(For registered participants, introduction to the practical part)*

14:45 - 17:15 [2h30] (11:45 - 13:15 ITA)

The workshop will delve into the application component. Contributions:

- **Mattia Borrione**, PhD student UniGe - FROM DATA TO DESIGN
- **Fabio Gnassi**, PhD student UniGe - DATA COLLECTION, LABELING & STABLE DIFFUSION

### **Third Day**, Monday, February 3 *(For registered participants, evaluation of outcomes and debate)*

14:45 - 17:15 [2h30] (11:45 - 13:15 ITA)

The new reference datasets integrated into the 'LoRa-Archea' model will be used to explore and assess new architectural synergies from a generative perspective.

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