

2nd INTERNATIONAL SUMMER SCHOOL

Naples, Italy - July 15-19, 2024



UNIVERSITY OF NAPLES
FEDERICO II

Department of Structures for
Engineering and Architecture



DIPARTIMENTO
DI ECCELLENZA
MUR

Within the courses of the Ph.D.
program in *Structural & Geotechnical
Engineering and Seismic Risk*

LOCATION

Federico II Conference Centre
Via Partenope, 36 - 80121 Naples, Italy

CHAIRS

Costantino Menna

University of Naples Federico II

Freek Bos

Technical University of Munich

WHO SHOULD ATTEND

Ph.D. students, postdoctoral
researchers, practitioners interested in
research and applications of additively
manufactured structures

CONTACTS

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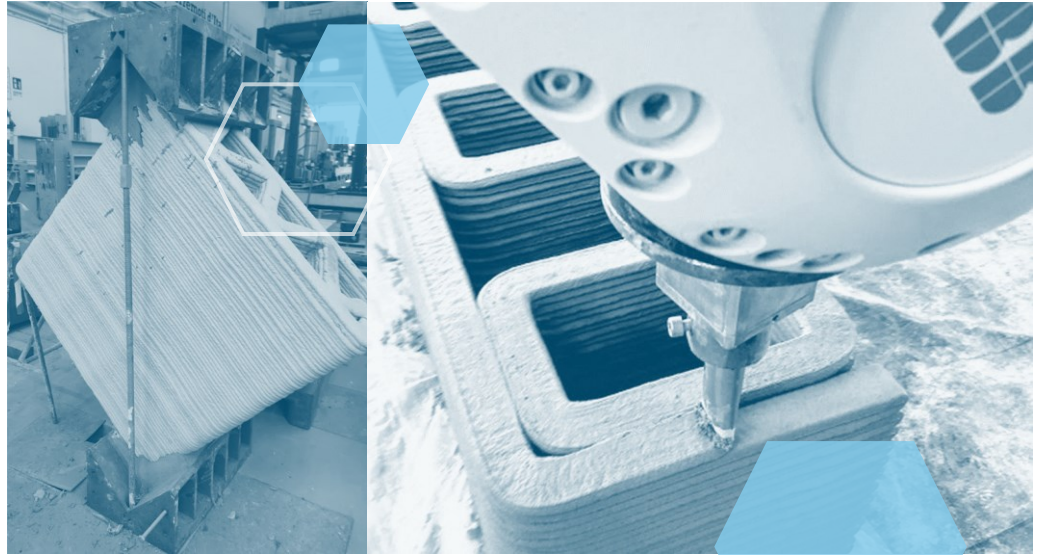
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PRE-REGISTRATION

URL: <https://cutt.ly/zwBDrnT8>

Deadline: April 30, 2024

ADDITIVELY MANUFACTURED CONCRETE STRUCTURES



AIM and SCOPE

The additive manufacturing (AM) of cementitious materials, particularly through the technique of 3D Concrete Printing (3DCP), is rapidly expanding in the construction industry with relevant developments in the material and production technologies as well as in the advanced design of high TRL projects. This growth necessitates a comprehensive understanding of various factors, including the control of material properties in their fresh state, structural analysis with reinforcement considerations, and the robust integration of applications on a large scale.

Currently, there is a pressing demand for establishing a solid academic foundation among researchers engaged in the digital design-to-fabrication process of innovative 3D printed structures. Enhancing technological and engineering expertise in 3DCP promises to elevate awareness within the construction field, thereby optimizing the socio-economic-environmental benefits derived from its effective implementation.

The primary objective of this Summer School is to train participants with the most advanced technical knowledge—analytical, numerical, and practical—on designing and constructing structures using 3DCP. A novel addition to this year's program includes sessions by distinguished guest lecturers on specific research themes or practical applications of 3DCP, alongside increased opportunities for students to engage with their research activities. This initiative aims to foster exchange and discussion on these topics, promoting a richer learning experience and deeper understanding of 3DCP's potential and challenges.

INTERNATIONAL LECTURERS

Costantino Menna - University of Naples Federico II (Italy)

Freek Bos - Technical University of Munich (Germany)

Arnaud Perrot - Université Bretagne Sud (France)

Jacques Kruger - Stellenbosch University (South Africa)

ADDITIONAL INVITED LECTURERS