



Course announcement
"Additive manufacturing technologies in building construction"
Prof. Valentino Sangiorgio



8 Hours
Classes will be in English
Compulsory attendance
Final presentation based on a set of questions provided on the first day.

Additive manufacturing technologies in building construction

The class will provide an overview of the various 3D printing technologies focused on the possible research application in the field of construction sector. In particular, the technology of Fused Deposition Modeling (FDM) will be explained in detail by providing specific information on the different printable materials with related mechanical characteristic, energy performance and environmental impact.

In the first part of the class, a training course will start from the three-dimensional parametric modeling of objects in specific software, processing and optimization of the digital model.

The second part of the course will show how to obtain the actual FDM printing through a specific "slicer software" starting from the three-dimensional model.

Finally, a practical experience on the use of the 3D printing in a real research project regarding the construction sector will be proposed to the PhD students.

Software: Rhinoceros and Grasshopper.

OBJECTIVES

- 1) Provide students with a basic theoretical and practical knowledge of 3D printing technologies in the construction industry;*
- 2) Train students on the basics of parametric modeling, three-dimensional modeling, and optimization;*
- 3) Provide basic practical skills for 3D printing.*



✉ **Register by** sending email to:

tea.taraborelli@unich.it & Valentino Sangiorgio(in cc)

*For those not at University of Chieti-Pescara it is possible to follow the short course online:
specify request when you register.*

TIMETABLE			