Making the artificial and natural worlds coexist in harmony

ABSTRACT
Additive Manufacturing (AM) technologies have further unlocked the possibility of enriching the artificial world with shapes, materials, and functionalities whose complexity strives to mimic that of the natural world. We can significantly increase the added value of a product in terms of performance and uniqueness, leveraging AM design potential and exploiting nature-inspired solutions. The lecture will overview how we leverage these new design opportunities to advance the artificial world and the open challenges to address toward this target. However, it will also highlight our role and responsibility in making that advancement coexist harmoniously with the natural world inspiring us.

BIOGRAPHY
Serena Graziosi is an Associate Professor at the Department of Mechanical Engineering of Politecnico di Milano. She is the Leader of the Design for Additive Manufacturing (DfAM) Special Interest Group of the Design Society and a member of the Design Society’s Advisory Board. She is also a member of the Steering Committee of the UK Design for Additive Manufacturing Network. Her research interests are in the field of engineering design methods and tools. She applies and contributes to the growth of all those technologies that can be leveraged to foster product innovation. Concerning DfAM, she is currently working on designing mechanical metamaterials, new AM materials, 3D-printed phantom organs, multi-material printing, and computational design strategies.