Special Issue

From 3D/4D Printing to Biofunctional Surfaces and Smart Implant Systems

Message from the Guest Editor

Recent advances in additive manufacturing and materials science have ushered in a new era in biomedical engineering, where the boundaries between disciplines are increasingly blurred. This Special Issue, "From 3D/4D Printing to Biofunctional Surfaces and Smart Implant Systems," aims to highlight the latest research and innovations at the intersection of 3D/4D printing, surface engineering, and intelligent implantable devices. This Special Issue seeks to showcase how 3D and emergent 4D printing technologies are revolutionizing the design and fabrication of customized medical devices, scaffolds, and implants. Beyond structural innovation, the development of biofunctional surfaces—engineered to interact with biological environments—has opened new possibilities for enhancing biocompatibility, antimicrobial properties, and tissue integration. Furthermore, the integration of smart materials and responsive systems has enabled the creation of next-generation implant systems capable of dynamic interaction with physiological cues, delivering personalized and adaptive therapeutic solutions.

Guest Editor

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Message from the Editor-in-Chief

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Editor-in-Chief

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