

Special Issue

Applications of Three-Dimensional Printing in Medical Prototyping and Manufacturing

Message from the Guest Editors

The 3D printing market, in terms of revenue, is estimated to grow up to USD 34.5 billion by 2028, as mentioned by the 3D Printing Market Report (Code SE 2936) <https://www.marketsandmarkets.com/Market-Reports/3d-printing-market-1276.html>). There is a wide range of 3D printing technologies depending on the deposition technique, materials type, geometric precision of the printed parts, and, last but not least, availability and costs. Their application in medical research, surgery, dentistry, prosthetics, and orthotics is highly expanding for the benefit of individuals' quality of life. This Special Issue intends to present relevant research results in the field of 3D printing in medical prototyping and manufacturing, mainly covering topics such as:

- Medical 3D printing: benefits, advantages, and limitations;
- 3D printing in cleanrooms;
- 3D printing of prosthetics components;
- 3D printing of implants;
- 3D printing of biological architected materials;
- 3D printing for drug forms;
- Failure in 3D printing of medical devices.

We are looking forward to receiving your fundamental and/or applied research papers.

Guest Editors

Dr. Mihaela Iliescu

Institute of Solid Mechanics, Romanian Academy, 030167 București, Romania

Dr. Florian Ion Tiberiu Petrescu

Department of Mechanisms and Robots Theory, National University of Science and Technology Polytechnic Bucharest, 060042 Bucharest, Romania

Deadline for manuscript submissions

closed (20 May 2025)



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/189578

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
appls@mdpi.com

mdpi.com/journal/appls





Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



[mdpi.com/journal/
applsci](https://mdpi.com/journal/applsci)



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,
20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)