

# Special Issue

## Advances in 3D Printing Technologies: Materials, Processes, and Applications

### Message from the Guest Editors

For this Special Issue, we welcome submissions showcasing novel materials, process innovations, and real-world applications. Contributions should include experimental, computational, or theoretical approaches to enhance the understanding and implementation of 3D printing, with a focus on integrating IoT and AI to further advance the field. We encourage you to submit your work in the following research areas: -

Development of advanced materials for 3D printing; - Hybrid and non-traditional printing techniques; - IoT-enabled monitoring and control in 3D printing; - Precision, scalability, and optimization in additive manufacturing; - Sustainable materials and processes; - Applications in healthcare, aerospace, and automotive industries; - Characterization and modeling of printed materials; - Multi-material and multi-scale printing; - Quality assurance and defect analysis; - Process monitoring, data-driven methods, and Industry 4.0 integration.

### Guest Editors

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### Deadline for manuscript submissions

31 October 2025



## Machines

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## About the Journal

### Message from the Editor-in-Chief

*Machines* is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications. Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided. There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

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### Editor-in-Chief

Prof. Dr. Antonio J. Marques Cardoso  
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