

## Special Issue

# Advances in Additive Manufacturing: Processes, Systems, and Emerging Horizons

### Message from the Guest Editor

Additive manufacturing (AM) and 3D printing are transforming industries by enabling complex geometries, design innovations, and rapid production. As AM transitions from prototyping to scalable manufacturing, challenges persist in optimizing processes, integrating intelligent systems, and bridging digital design with physical production. This evolution demands innovations across materials, hardware, software, and emerging paradigms such as AI-driven automation, hybrid workflows, and adaptive production strategies. This Special Issue of *Machines* focuses on advances in AM technologies that address these challenges while exploring new frontiers. We invite contributions on novel processes, systems, and applications that push the boundaries of AM's capabilities. We welcome original research, reviews, and case studies that advance AM's scientific foundations, technological maturity, and industrial relevance. Submissions exploring software/hardware integration, AI-driven workflows, or novel paradigms (e.g., cooperative/swarm manufacturing) are also encouraged as part of AM's broader evolution.

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### Guest Editor

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### Deadline for manuscript submissions

31 December 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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