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Powder Recycling for 3D Printing Additive Manufacturing

Guest Editor:

Dr. Nima E. Gorji

School of Manufacturing, Technological University Dublin, D15YV78 Dublin, Ireland

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Message from the Guest Editor

Powder recycling has attracted significant interest from industry and manufacturing research groups due to its huge potential for reducing metallic waste, reducing the cost of final printed parts and the interest in deriving additive manufacturing towards green, environmentally friendly technology. This Special Issue aims to publish high-quality papers on powder recycling for subsequent reuse cycles in 3D printing processes and on new methods for powder reconditioning/reuse strategies. This Special Issue targets the advanced development of scholars focusing on new methods, new tools, and emerging approaches to reuse metallic powders in 3D printing and the new strategies for mixing the fresh and used powders in a way that aligns with the mechanical properties of the final printed parts. The new design of the parts and new powder surface treatment methods leading to reduced waste of leftover powder are accepted, and new system designs to enhance powder collection from the finished build cycles are also encouraged in this Special Issue.

- powder recycling
- powder reconditioning
- 3D printing
- additive manufacturing
- powder reuse
- leftover powder
- laser powder build fusion





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Editor-in-Chief

Message from the Editor-in-Chief

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

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