



## Advances in Additive Manufacturing and Their Applications

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### Message from the Guest Editor

Additive manufacturing (AM) is a new type of manufacturing engineering, with less than 35 years of history. The real value of additive manufacturing is in identifying those applications where reductions in lead time, manufacturing cost, weight, tooling, and so on can lead to huge benefits across a part's lifecycle in many applications from industry to medicine.

The ability to deliver near-instant part production and fully custom designs that cannot be replicated with other manufacturing techniques has accelerated investment and research in additive engineering.

A number of different metals are now available in powdered form to suit exact processes and requirements. Titanium, steel, stainless steel, aluminum, and copper-, cobalt chrome-, titanium- and nickel-based alloys are available in powdered form, as are precious metals such as gold, platinum, palladium and silver.

This Special Issue will cover fundamental studies of additive manufacturing process, optimizations, new additive processes, rapid tooling, and applications from industry to medicine using metal powders as raw materials.





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## Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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