Special Issue

Advancing Wire Arc Additive Manufacturing (WAAM) for Metallic Component Manufacture: Recent Developments and Challenges

Message from the Guest Editor

Wire Arc Additive Manufacturing (WAAM), also called Wire Arc Directed Energy Deposition (WA-DED), is an emerging alternative to traditional forging and casting methods for producing large metallic components. With its ability to achieve high deposition rates and utilize cost-effective feedstock, WA-DED offers an efficient solution for large-scale manufacturing. We invite researchers to contribute articles focusing on the following topics:

- Comparisons of arc processes, in situ enhancements, and defect reduction techniques.
- Strategies for material efficiency and advanced control systems to improve precision and mechanical performance.
- Microstructural heterogeneity, anisotropy with build height, and tensile properties at various locations.
- Mechanical testing under aerospace-relevant conditions.
- Economic and lifecycle assessments of WA-DED tools and processes.
- Insights into defect distribution and customized equipment design for WA-DED.

We welcome innovative research that advances WA-DED technologies and applications for large-scale manufacturing.

Guest Editor

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Message from the Editor-in-Chief

Journal of Manufacturing and Materials Processing (*JMMP*)(ISSN 2504-4494) is a new MDPI peer-reviewed, open access venue with a focus on the scientific fundamentals and engineering methodologies of manufacturing and materials processing. We offer an online platform facilitating effective exchange of innovative scientific and engineering ideas and the dissemination of recent, original, and significant research and developmental findings. On behalf of the Editorial Board, I extend an invitation to our scientific and engineering colleagues to contribute high-quality, innovative, and ground-breaking research articles to *JMMP.*

Editor-in-Chief

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