

Special Issue

Progress in Digital Twin Integration for Smart Machining

Message from the Guest Editor

The manufacturing industry is confronted with increasing demands of digitalization and ever-increasing global competitiveness. Successful development and implementation of digital twin for machining processes as key enablers for quality assurance require close collaboration between the physical world and virtual world, realistic digitization, and model reliability of the virtual representation. This Special Issue aims to bring researchers together concerning the latest advances and progress in the integration of digital models, digital shadows, or digital twin using physics-based models, surrogate models, and supervised machine learning methods. This Special Issue invites the submission of high-quality research articles related to Progress in Digital Twin Integration for Smart Machining, including but not limited to:

- Digital representation of machining process including mathematical, simulation models, etc.;
- Discretized force model, cutting tool discretization;
- Dynamic force model, surface location error model;
- Digital shadow or digital twin;
- Digital models with one-way or two-way automated data flow between physical and digital machining.

Guest Editor

Prof. Dr. Tuğrul Özel

Industrial & Systems Engineering, Rutgers University—New Brunswick,
96 Frelinghuysen Rd, Piscataway, NJ 08854, USA

Deadline for manuscript submissions

closed (31 October 2021)



Journal of Manufacturing and Materials Processing

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 5.2



mdpi.com/si/66599

*Journal of Manufacturing and
Materials Processing*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
jmmp@mdpi.com

[mdpi.com/journal/
jmmp](https://mdpi.com/journal/jmmp)





Journal of Manufacturing and Materials Processing

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 5.2



[mdpi.com/journal/
jmmp](https://mdpi.com/journal/jmmp)



About the Journal

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

Prof. Dr. Steven Y. Liang
George W. Woodruff School of Mechanical Engineering, Georgia
Institute of Technology, Atlanta, GA 30332-0405, USA

Author Benefits

High Visibility:

indexed within Scopus, ESCI (Web of Science), Inspec, CAPIus / SciFinder, Ei Compendex and other databases.

Journal Rank:

JCR - Q2 (Engineering, Mechanical) / CiteScore - Q2
(Mechanical Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.9 days after submission; acceptance to publication is undertaken in 3.5 days (median values for papers published in this journal in the second half of 2025).