# Special Issue

# Advances of Intelligent Manufacturing Process and Equipment

## Message from the Guest Editor

This Special Issue invites contributions that explore innovative methodologies, theoretical frameworks, and engineering implementations specifically targeted at intelligent manufacturing. Topics of interest include, but are not limited to, the following:

- Industrial large language models for generative process planning, natural human–robot interaction, and prescriptive maintenance;
- Embodied AI and robotics with multimodal perception for decision-making in unstructured environments, as well as humanoid robots employed for complex assembly/disassembly tasks;
- Digital twin technologies for high-fidelity modeling, real-time simulation, and closed-loop optimization of manufacturing systems;
- Advanced optimization theories and AI-driven algorithms for dynamic scheduling, quality prediction, and energy-efficient operation.

We particularly encourage submissions addressing challenges such as cognitive process planning, adaptive equipment autonomy, human–robot collaboration, and the seamless integration of digital–physical systems. Contributions related to multimodal data fusion, model interpretability, and the implementation of human-centric AI frameworks in manufacturing are also welcome.

## Guest Editor

Dr. Gang Yuan

College of Engineering, Nanjing Agriculture University, Nanjing 210031, China

## Deadline for manuscript submissions

28 June 2026

# Processes

MDPI

# Processes

**Impact Factor 2.8**
**CiteScore 5.5**

# About the Journal

### Message from the Editor-in-Chief

You are invited to contribute either a research article or a comprehensive review for consideration and publication in *Processes* (ISSN 2227-9717). *Processes* is published in open access format – research articles, reviews, and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited, free access to the content. As an open access journal, *Processes* is supported by the authors and their institutes through the payment of article processing charges (APCs) for accepted papers. We would be pleased to welcome you as one of our authors.

### Editor-in-Chief

Prof. Dr. Giancarlo Cravotto
Department of Drug Science and Technology, University of Turin, Via P. Giuria 9, 10125 Turin, Italy

### Author Benefits

**Open Access:**
free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:**
indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, AGRIS, and other databases.

**Journal Rank:**
CiteScore - Q2 (Chemical Engineering (miscellaneous))