# **Special Issue**

# Production Scheduling and Planning in Manufacturing Systems

# Message from the Guest Editor

The focus of this special issue is on two important practice-relevant aspects that are the subject of intense research: the consideration of limited capacities and the handling of uncertainty. Planning models and procedures should be addressed. Traditionally, heuristics and optimization models are used. The possibilities of extending these to include artificial intelligence methods should form a focal point. The papers may frame operational production planning and control as the backbone of production process planning in commercially available IT systems. These approaches are welcome to be implemented in industrial practice. The following topics serve as examples, but are by no means exhaustive.

- Modelling and consideration of uncertainty through forecasting, inventory strategies, safety stocks, scenario technology, and stochastic optimization.
- Planning improvement through resource-constrained project scheduling.
- Lot sizing under capacity restrictions.
- Simulation and optimization.

For detailed information, please visit: mdpi.com/journal/systems/special\_issues/05PUQB03 N3

#### **Guest Editor**

Prof. Dr. Frank Herrmann

Ostbayerische Technische Hochschule Regensburg, 93025 Regensburg, Germany

# Deadline for manuscript submissions

closed (30 April 2025)



# **Systems**

an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 4.1



mdpi.com/si/195444

Systems
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
systems@mdpi.com

mdpi.com/journal/ systems





# **Systems**

an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 4.1



# **About the Journal**

# Message from the Editor-in-Chief

Systems is a leading venue for the quick and global dissemination of results of cutting-edge research in various areas of systems science and systems-related fields. An increasing number of researchers are realizing the enormous potential of systems thinking in managing the many unprecedented and complex issues in all areas of need. The Systems journal provides a home of exceptional quality for the manuscripts of these researchers who often find it difficult to publish their work in conventional discipline focused journals.

## Editor-in-Chief

# Prof. Dr. Ben Clegg

Operations & Service Management Department, Aston Business School, Aston University, Birmingham B4 7ET, UK

### **Author Benefits**

## Open Access:

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

# **High Visibility:**

indexed within Scopus, SSCI (Web of Science), Ei Compendex, dblp, and other databases.

## Journal Rank:

JCR - Q1 (Social Sciences, Interdisciplinary) / CiteScore - Q2 (Modeling and Simulation)

