



Thematic Section “Production Engineering leading the Digital Transformation”

Submission deadline: May 1st, 2022

Production engineering embraces a vast number of disciplines and application areas, from Manufacturing and Industrial Engineering to Operations Management. The involved communities in both academia and industry reflects this diversity. The interest of production engineering includes manufacturing, industrial, production, logistics, transport and supply, which are structured in systems, operations, processes, products, services, chains, networks and organizations. These digital, intelligent, networked systems are immersed in different global/local environments: societies, economies and industries. In this context, by employing proper technologies and methods, production engineering aims at systems efficiency, productivity, effectiveness, resilience, robustness, adaptiveness and sustainability.

Production Journal is a scholarly publication that aims to foster knowledge creation and dissemination in the Production Engineering field. **The journal publishes academic articles in Operations, Manufacturing, Industrial and Production Engineering and Management, considering a systems-oriented view.** This Thematic Section aims to enhance the leadership of our disciplines in the digital transformation of industry and services, taking different perspectives: Education, Research and Applications.

The Associate Editors and the Editor-in-chief of the journal Production invite scientists, engineers and decision makers from government, industry and academia to contribute with research papers. **The manuscripts must present well-described scientific background; practical and academic relevance; clear aims; robust methods; well-presented and thoughtfully discussed results, with an original and relevant theoretical, empirical and/or methodological contribution.**

The aim of this thematic section is to attract high-quality manuscripts, considering the following areas:

1. Manufacturing and Industrial Engineering
2. Operations Management and Engineering
3. Logistics and Supply Chain Management
4. Operational Research
5. Knowledge, Information and Data
6. Quality Management, Lean Management and Engineering
7. Strategy and Organizational Engineering
8. Production Economics
9. Product and Service Development
10. Work and Human Factors

Topics of interest (not an exhaustive list):

- digital transformation in industry and services
- digital transformation in Brazil: application projects with relevant theoretical, empirical and/or methodological contribution
- project-based and research-based learning practices; research-education relationship; industry and academia collaboration
- technology evolution impacting production engineering
- technology-based and data-driven approaches in production engineering education, research and applications for dealing with current and future market and societal challenges
- production engineering for a competitive, sustainable and resilient digital future
- digital connectivity allowing for enhanced manufacturing networks (with horizontal, vertical and end-to-end integration)
- production planning and control convergence
- supply chain integration: analysis, design, planning and control of coordinated production-logistics systems as well as supply networks
- advanced decision-making approaches based on simulation (digital twins), optimization and predictive analytic methods
- mass customization; flexible, reconfigurable and changeable manufacturing systems
- shorter product and service life cycles; digital servitization; product-service systems; maintainability, serviceability and life-cycle; service planning and quality; service automation
- alignment of manufacturing concepts, methods, capabilities and technologies, considering social (human-centred) requirements
- decision-making in production systems, operations and logistics based on cyber-physical systems and socio-cyber-physical systems
- adaptive, agile and resilient production systems; design and analysis of intelligent production systems
- e-manufacturing, social manufacturing, virtual enterprises, global manufacturing networks
- decision-support systems in digital, resilient and sustainable manufacturing and supply chain systems in the era of Industry 4.0 based on the combination of Industrial Engineering, OR and Data Science
- manufacturing strategy, policy formulation and evaluation
- globalization and *deglobalization* - production and logistics strategies

As a way to foster the scientific debate within the research community, manuscripts **submitted** to this Thematic Section of Production will be **presented** at a Prime Thematic Session during ENEGEP 2022 (National Production Engineering Meeting). *The submitted manuscripts will not be published in the ENEGEP 2022 proceedings.*

Submission

For author guidelines, please refer to <https://www.prod.org.br/instructions>. **A detailed cover letter must be submitted, in which authors highlight the manuscript adherence to the Editorial scope of the journal, theoretical and practical relevance, aims, methods, main results and its original theoretical, empirical and/or methodological contribution.**

Submissions site: <https://mc04.manuscriptcentral.com/prod-scielo>, choosing Thematic Section “Production Engineering leading the Digital Transformation” in the submission process.

Important Dates

Thematic Session Opening	18.10.2021
Submission	01.05.2022