



## Thematic Section on “Present and Future of Production Engineering”

Production engineering embraces a vast number of disciplines and application areas, from Manufacturing and Industrial Engineering to Operations Management. The involved communities both in academia and in industry reflect this diversity. The interest of production engineering includes manufacturing, industrial, production, logistics, transport and supply, 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 vision. This Thematic Section of Production journal aims to provide a detailed description of current situation and depict possible futures for Production Engineering as a research and praxis-oriented discipline.

The thematic section guest editors 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 on the “Present and Future of Production Engineering”, 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, surely, an exhaustive list):

- technology evolution impacting in production engineering
- technology-based approaches towards data-driven (evidence-based) production engineering theory (research) and practice (application) for dealing with current and future market and societal challenges
- supply chain integration: analysis, design, planning and control of coordinated production-logistics systems as well as supply networks
- operational decision-making models based on optimization, simulation, data-oriented methods
- Industry 4.0, cyber-physical systems, computer-aided, communication-based and Internet-based procedures and processes impacting in production systems
- adaptive, agile and resilient production systems; design and analysis of intelligent production systems
- e-manufacturing, social manufacturing, virtual enterprises
- development of formal descriptive or prescriptive models of manufacturing systems
- management 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
- design of production systems and supply networks
- innovation management in the design of products, manufacturing processes, as well as production and logistics systems
- complex decision problems that arise in design, management and control of production and logistics systems
- manufacturing strategy, policy formulation and evaluation
- design, measurement and operation of production and logistics systems
- process, production, assembly, factory and production network design and planning
- mass customization; flexible, reconfigurable and changeable manufacturing systems
- life cycle of products and systems
- product-service systems; servitization; maintainability, serviceability and life-cycle; service planning and quality; service automation

**Guest Editors:** Andrew Kusiak (University of Iowa, USA), Dmitry Ivanov (Berlin School of Economics and Law, Germany), Fernando Deschamps (Pontifical Catholic University of Parana, Brazil), Guilherme Tortorella (Federal University of Santa Catarina, Brazil), Marco Silvestri (Università di Parma, Italy / University of Applied Sciences and Arts of Southern Switzerland, Switzerland), Michael Freitag (Universität Bremen, Germany).

### Submission

For author guidelines, please refer to [www.prod.org.br](http://www.prod.org.br). **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 “Present and Future of Production Engineering” in the submission process.

### Important Dates

Thematic Session Open	01st December 2018
<b>Submission Deadline 1</b>	<b>30th July 2019 (publication in 2019)</b>
Submission Deadline 2	30th November 2019 (publication in 2020)