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Special Issue

Logistics Research

Call for Papers

Robust Manufacturing Control: Robustness and Resilience in Global Manufacturing Networks

Submission Deadline: May 31, 2015

Scope

Today, global production networks (i.e. the nexus of interconnected material and information flows through which products and services are manufactured, assembled, and distributed) are confronted with and expected to adapt to (1) sudden, unexpected, and frequent but irregular large-scale changes of important parameters, (2) event propagation, and (3) non-equilibrium states. These multi-scale changes deeply influence logistic target achievement and call for robust design, planning, and control strategies. Therefore, understanding the cause and effects of multi-scale changes in production networks is of major interest. New methodological approaches from different science disciplines can contribute to reach a new level of comprehension of network processes. Unconventional methods from biology, ecology, sociology, or auditory display are gaining increasing importance as similar challenges have already been addressed in these disciplines. Advancements from the classical disciplines such as mathematics, physics, and engineering are of continuing importance.

Topics of Interest

We invite all researchers to contribute fundamental and applied research work to this special issue by submitting their reports on approaches coping with the outlined challenges for global production networks. Novel contributions from engineering sciences, business studies, computer sciences, mathematics, biology, and other relevant disciplines are welcome. The following topics (and related) are of special interest:

- effects of fluctuations on networks
- robust production planning and control
- advanced statistical methods in production networks
- bio-inspired methods in logistics, biomimetics
- local information versus global information in networks
- influence of network architectures on logistics target achievement
- data mining and time series analysis in logistics
- logistics pattern analysis by interdisciplinary approaches (e.g. auditory display, perturbation ecology) and advanced classical approaches
- global production in non-equilibrium states

Submission Details

Logistics Research is open access, which means that all articles published are freely available online. Authors can publish in the journal without any additional charges.

Authors are requested to select the special issue "**S.I.: Robust Manufacturing Control**" when submitting their manuscripts via the journal website (www.springer.com/engineering/production+engineering/journal/12159). Manuscripts will be processed upon submission and published immediately after the completion of the editorial process.

The final submission deadline is May 31, 2015.

Special Issue Editors & Robust Manufacturing Conference Chairs

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