

Special Issue

Meta-Heuristics for Manufacturing Systems Optimization

Message from the Guest Editors

Meta-heuristics are effective tools inspired from the phenomena and behavior of nature and society. The manufacturing industry is an important part of the economy in a number of countries, including in China. Many complicated optimization problems, including scheduling and routing, extensively exist in manufacturing systems. They may have symmetrical features or constraints, and some of them possess asymmetrical conditions that are difficult to tackle using traditional optimization methods. In the last decade, meta-heuristics have become the main path to solve manufacturing system optimization problems, and a number of results have been obtained. This Special Issue invites contributions addressing novel theories, techniques, and applications of meta-heuristic-based manufacturing system optimization. We intend to garner articles on a variety of topics, such as meta-heuristics for multi-objective optimization, meta-heuristics for constrained optimization, multi-objective production scheduling, production scheduling with uncertainty, energy-efficient scheduling, distributed scheduling, dynamic scheduling, etc. Extensive review papers on the latest research findings are also welcome.

Guest Editors

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Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

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