

# Call for Papers

\*\*\*\*\* Special Issue on Advanced intelligent scheduling algorithms for smart manufacturing systems at Memetic Computing \*\*\*\*\*

## 1. Theme

Manufacturing industry is the material basis of main industrial body and the engine for the rapid growth of economy as well as an important guarantee for overall national power. Production scheduling is one of the most common and significant problems faced by the manufacturing industry, which is to allocate limited resources to tasks over time and to determine the sequence of operations so that the constraints of the manufacturing system are met and the performance criteria are optimized as well. Advanced scheduling theories and technologies play important roles in smart manufacturing systems under Industry 4.0 to improve product adapting ability and competitiveness in the dynamically changing market with the goal of low consumption, clean and flexible production.

Due to a variety of complexities in manufacturing systems, intelligent optimization algorithms, such as genetic algorithm, particle swarm optimization, ant colony optimization, differential evolution, tabu search, variable neighborhood search and large-scale neighborhood search, have been successfully applied to the classical scheduling problems and the generalized problems as well as the practical systems. This special issue intends to give the state-of-the-art of the advanced intelligent optimization research that satisfies the needs of smart manufacturing scheduling systems. Interdisciplinary methodologies may be given based on the innovative intelligent computing and optimization techniques for complex scheduling problems.

## 2. Scope of Topics

The aim of this special issue is to reflect the most recent developments of scheduling algorithms for smart manufacturing systems. The topics of interest include, but are not limited to:

- Knowledge-based intelligent scheduling algorithms;
- Data-driven intelligent scheduling algorithms;
- Hybrid intelligent scheduling algorithms;
- Distributed intelligent scheduling algorithms;
- Memetic scheduling algorithms;
- Intelligent optimization algorithms for scheduling problems associated with open shop, flow shop, job shop, flexible shop, distributed shop, assembly line, etc;
- Intelligent optimization algorithms for green scheduling;
- Intelligent optimization algorithms for multi-objective scheduling;
- Intelligent optimization algorithms for stochastic/fuzzy/interval/dynamic scheduling;
- Intelligent optimization algorithms for scheduling in practical systems

## 3. Important Dates

- Manuscript submission: January 31, 2019
- First review completed: April 30, 2019
- Revised manuscript Due: July 31, 2019

- Second review completed: September 30, 2019

#### **4. Guest Editors**

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