Special Issue

Data-Driven Intelligent Modeling and Optimization Algorithms for Industrial Processes

Message from the Guest Editors

This Special Issue aims to explore the multifaceted aspects of data-driven intelligent modelling and optimization algorithms for industrial processes. The main objectives are to harness the power of data to improve control, decision making and parameter optimization, and to drive industrial systems to unprecedented levels of efficiency, reliability, and adaptability. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Data-Driven Modeling:
  Intelligent data representation;
  Integration/hybrid modeling.
- Machine Learning and Optimization:
  Advanced machine learning algorithms;
  Hybrid models with optimization algorithms;
  Adaptive learning algorithms.
- Intelligent Process Monitoring:
  Real-time data monitoring and analysis;
  Soft sensing technologies;
  Operating mode perception and recognition.
- Decision Support Systems:
  Intelligent decision support systems;
  The integration of optimization algorithms;
  Human–machine collaboration for enhanced decision making.

Guest Editors

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Prof. Dr. Xiongbo Wan

Deadline for manuscript submissions

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About the Journal

Message from the Editor-in-Chief

Algorithms are the very core of Computer Science. The whole area has been considered from quite different perspectives, having led to the development of many sub-communities: Complexity theory (limitations), approximation or parameterized algorithms (types of problems), geometric algorithms (subject area), metaheuristics, algorithm engineering, medical imaging (applications), indicates the range of perspectives. Our journal welcomes submissions written from any of these perspectives, so that it may become a forum for exchange of ideas between the corresponding scientific subcommunities.

Editor-in-Chief

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