Special Issue

Industrial IoT-Enabled Modeling and Optimization for the Process Industry

Message from the Guest Editors

The process industry is the pillar of national economies. Given severe resource and market pressure, there is an urgent need to improve the efficiency and decarbonization through smart manufacturing strategies. Industrial IoT creates the core of smart manufacturing by integrating advanced sensing, communication, and data mining technologies. Industrial IoT has greatly facilitated the modeling and optimization of manufacturing processes, but it also brings challenges, e.g., how to integrate mechanism knowledge with industrial big data in the modeling of industrial process and how to deal with multiple and coupled objectives in the optimization of the production process. This Special Issue aims to summarize new theories and their applications in Industrial IoT-based modeling and optimization for complex industrial processes, especially in industry applications.

- Industrial IoT-enabled process modeling;
- Process monitoring and fault diagnosis;
- Industrial process optimization;
- Production and logistics optimization;
- Smart manufacturing;
- Machine learning applications in the process industry.

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Editor-in-Chief

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