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Intelligent Control and Digital Twins for Industry 4.0

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Message from the Guest Editor

An important concept which forms a part of Industry 4.0 is the digital twin—a digital representation of real-life systems and phenomena. An intrinsic part of a digital twin is data. In industry, massive amounts of data can be collected through sensing technology that describe process dynamics, related process trends, etc. Digital twins allow putting these data to beneficial use through the application of advanced modeling techniques resulting in accurate process descriptions that can then be used to design intelligent control systems ensuring optimal performance and energy efficiency of industrial systems.

Some subtopics may include

- Modeling, analysis, and control of complex industrial processes;
- Applications of digital twins in Industry 4.0;
- Sensing technologies for digital twins;
- Artificial intelligence and machine-learning-based applications for industrial processes.

- Industry 4.0
- machine learning
- artificial intelligence
- computational intelligence
- digital twin
- computer vision
- industrial application
- intelligent control system
- communications and signal processing
- Internet of Things



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Special Issue



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Message from the Editor-in-Chief

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