Special Issue

Artificial Intelligence for Automation

Message from the Guest Editors

The integration of Artificial Intelligence (AI) into automation marks a significant shift in industry operations, enhancing traditional rule-based processes with the ability to learn and adapt. AI-driven automation allows for greater precision, scalability, and autonomy. Machine learning algorithms analyze data from various sources to optimize processes in real-time, crucial for making quick and accurate decisions in complex environments. This Special Issue will focus on the latest advancements, case studies, and best practices in the application of AI to automation, including, but not limited to, the following:

- AI for autonomous robotics and multi-robot systems;
- AI in the smart grid, industrial IoT, and healthcare;
- AI for predictive maintenance and fault detection in automated systems;
- AI-based human–robot collaboration and augmented reality in automation;
- AI for autonomous vehicles and intelligent transportation systems;
- Deep learning and reinforcement learning for adaptive automation;
- AI for energy-efficient and sustainable automated systems;
- AI in healthcare automation, medical robotics, and precision medicine.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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