Special Issue

Intelligent Automation: Bridging Artificial Intelligence and Automation

Message from the Guest Editors

Intelligent automation (IA) represents the convergence of artificial intelligence and traditional automation technologies to create systems that can learn, adapt, and execute complex tasks with minimal human intervention.

IA systems incorporate feedback loops that continuously refine performance. Machine learning algorithms analyze outcome data—such as processing times or throughput—and adjust decision parameters over time. Their self-optimizing nature means that IA deployments grow increasingly efficient and accurate, unlocking higher levels of productivity and customer service. By adding machine learning, natural language processing (NLP), and computer vision to classic automation, IA can handle tasks that traditional systems cannot deal with.

This Special Issue on intelligent automation welcome contributions across a large spectrum of areas of AI in automation, e.g., AI in control, AI in optimization, AI in manufacturing systems, AI in process automation and monitoring, AI in energy systems, AI in the healthcare industry, and any other area that may be compassed by the scope of the Special Issue topic.

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Message from the Editor-in-Chief

Automation (ISSN 2673-4052) is a international peer-reviewed open access journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of automation and control system. Both experimental and theoretical papers are published, including all aspects of manufacturing systems, energy management systems, aerospace control systems, learning systems, intelligent control systems and so on. *Automation* organizes Special Issues devoted to specific automation and controlling areas and applications each year.

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