

## Special Issue

# Research Advances in AI-Driven Robotics and Automation

### Message from the Guest Editors

Industry and healthcare are entering a new stage of automation, driven by rapid advancements in artificial intelligence, sensing technologies, connectivity, and cyber-physical systems. AI-driven robotics extends automation beyond structured and repetitive tasks to flexible, adaptive, and safety-critical operations. At the same time, the deployment of AI-based robotic solutions in both industrial and medical contexts presents persistent challenges related to robustness, safety, real-time constraints, interoperability, maintenance, regulatory compliance, and performance validation under significant variability in products, processes, patients, and operating environments. This Special Issue aims to publish high-quality, original research articles that advance both the methodological foundations and the practical engineering, deployment, and validation of AI-driven robotics and automation systems across industrial and medical domains. We aim for this Special Issue to serve as a platform for dialogue between research and practice, bringing together contributions from robotics, automation, artificial intelligence, systems engineering, digital manufacturing, and medical technology.

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### Guest Editors

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### Deadline for manuscript submissions

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## Applied Sciences

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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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### Editor-in-Chief

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