Special Issue

Mathematical Methods for Intelligent Robotic Control and Design

Message from the Guest Editors

The current technological landscape demonstrates a paradigm shift driven by synergistic advancements in artificial intelligence architectures and computational hardware evolution. Notable progress has been particularly observed in multimodal perception systems, encompassing visual processing and force-tactile sensory modalities. This technological convergence suggests a trajectory towards the increasingly sophisticated integration of machine learning paradigms in robotic perception systems, potentially catalyzing transformative innovations in both perceptual algorithms and foundational AI methodologies. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Robot perception methods, such as visual perception and force sensing;
- Multimodal perception methods for intelligent unmanned systems;
- AI-driven perceptual frameworks for robotic systems;
- Application of artificial intelligence in robotic perception;
- Robot control, such as intelligent control based on learning, and multi-agent cooperative control.

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Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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