



Decision-Making and Control under Uncertainties for Robotic and Autonomous Systems

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Message from the Guest Editors

Dear Colleagues,

The integration of robotic and autonomous systems across various industries has marked significant technological advancement. However, the ever-present uncertainties inherent in dynamics, environmental conditions, and interactions with other agents pose significant challenges to the seamless functioning of these systems. Reliable and effective decision-making and control mechanisms in the face of uncertainties are crucial for the safety and efficiency of these systems.

This Special Issue welcomes original research articles, comprehensive reviews, and illuminating case studies that revolve around decision-making and control for robotic and autonomous systems operating under uncertainties. The topics encompassed will encompass a wide spectrum, including but not limited to:

1. Robust, adaptive, and data-driven control;
2. Risk-aware decision-making under perceptual and/or dynamics uncertainties;
3. Deep learning approaches for decision-making in uncertain environments;
4. Sensor fusion and perception algorithms for reliable decision-making;
5. Fault detection and diagnosis techniques;
6. Decision-making and control in real-world robotic and autonomous systems.





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Message from the Editor-in-Chief

It is my great pleasure to welcome you to our open access journal, *Robotics*, which is dedicated to both the foundations of artificial intelligence, bio-mechanics and mechatronics, and the real-world applications of robotic perception, cognition and actions. The 21st century is the robotics century and intelligent robots will change our lifestyle forever. Let us work together toward the realization of intelligent robots step by step.

It is great fun to create intelligent robots and imagine their practical applications. *Robotics* is now ready to serve you in the long journey towards such a goal.

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