Special Issue

Data-Driven Control System: Methods and Applications

Message from the Guest Editors

This Special Issue aims to cover a wide array of topics within data-driven control systems, including, but not limited to, the following: development and application of machine learning algorithms for real-time control, adaptive control mechanisms that learn from data in situ, and the utilization of big data analytics for enhancing control strategies. Additionally, we are interested in papers that explore the integration of IoT technologies with control systems to push the boundaries of automation and efficiency, as well as research that addresses the challenges of security, privacy, and robustness in these systems.

Specific areas of focus include advanced algorithmic solutions that facilitate predictive and adaptive control, techniques for managing and analyzing massive datasets in real-time to improve system responses, and the design of resilient architectures that support the demands of data-intensive, high-performance control applications. Theoretical explorations that ensure stability and reliability in control systems, along with practical applications demonstrating significant enhancements in sectors such as manufacturing, robotics, and smart grids, are particularly welcome.

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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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