Special Issue

Symmetry/Asymmetry in Intelligent Control Systems

Message from the Guest Editors

This Special Issue explores how symmetry and asymmetry influence the design, performance, and adaptability of intelligent control systems. In symmetrical control systems, uniform responses across components can enhance stability, predictability, and reliability, particularly in networked control systems and distributed sensor networks. By contrast, asymmetry in control strategies introduces flexibility and adaptability, which are essential in cooperative robotics and adaptive control applications, enabling intelligent systems to operate effectively in complex and dynamic environments. We invite contributions that address how symmetrical and asymmetrical configurations affect control system robustness, energy efficiency, and response adaptability, aiming to highlight the theoretical and practical advancements enabled by symmetry principles in intelligent control systems across various applications.

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About the Journal

Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

Editor-in-Chief

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