Special Issue

Symmetry and Its Applications in Automation and Control Systems

Message from the Guest Editor

In recent decades, controlled objects in engineering have been extended to various complex systems. The complex nonlinear dynamics of these systems increase the difficulty of system modeling and control. As a consequence, conventional control methods are no longer effective or applicable in many complex systems, such as intelligent robot systems and complex industrial process control systems. Therefore, it is necessary to continue to conduct in-depth research on modeling and control for nonlinear systems. Symmetry is universally present in nonlinear systems. By studying the phenomenon in nonlinear systems, we can further understand the complex dynamics in the system, thereby achieving accurate modeling and effective control of the system. Research on the theory of symmetry can provide new ideas for the development of new control strategies. Thus, this Special Issue on "Symmetry and Its Applications in Automation and Control Systems" aims to provide promising investigations on various symmetry control methods and exploit potential issues and challenges for future studies in related areas.

Guest Editor

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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.

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