

Special Issue

Numerical Simulation and Control of Mechanical and Mechatronic Systems

Message from the Guest Editor

This Special Issue includes topics with applications and innovations of the simulations analysis and control methodologies of the mechanical and mechatronic systems. Manuscripts discussing the implementation and development of the advanced methods of the analysis and control for mechanical and mechatronic systems concern disturbance rejection technologies with a high-order disturbance observer, a nonlinear disturbance observer, a super-twisting disturbance observer, a sliding mode disturbance observer, an equivalent input disturbance observer, a fixed-time disturbance observer, etc. With regards to robust control, adaptive control, fuzzy logic control, neural network control, sliding mode control, and linear and nonlinear control design are strongly recommended. However, this is not limited to other control methods. With regards to vibration control and isolation, the robust control methods and isolation for the nonlinear vibration structure and machinery are also welcome for this Special Issue. Especially, the new method for rejecting the thermal changing, fabrication errors, and outside effects of the vibration systems is strongly recommended.

Guest Editor

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Deadline for manuscript submissions

closed (31 August 2022)



Symmetry

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 5.3



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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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