Special Issue

Modeling, Optimization, and Control of Fractional-Order Neural Networks and Nonlinear Systems

Message from the Guest Editors

With the increasing application of fractional-order theory in the fields of neural networks and nonlinear systems, the Special Issue "Modeling, Optimization, and Control of Fractional-Order Neural Networks and Nonlinear Systems" aims to provide a platform for researchers to showcase their latest research findings, innovative methods and application cases in this field. The purpose of launching this Special Issue is to bring together significant developments concerning the modeling, optimization and control of fractional-order neural networks and nonlinear systems, and facilitate research collaboration and the exchange of ideas surrounding this topic. Potential topics include, but are not limited to, the following: Modeling and analysis of fractional-order neural networks; Reinforcement learning control and optimization of fractional-order neural networks; Intelligent learning and adaptive control of fractional-order neural networks; Robust distributed control methods of nonlinear systems; Sampled-data and event-triggered intelligent control; Distributed intelligent control and optimization applications; Security control of networked control systems.

Guest Editors

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Dr. Zhinan Peng

Prof. Dr. Xin Wang

Dr. Xiao Cai

Deadline for manuscript submissions

closed (1 October 2025)

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About the Journal

Message from the Editor-in-Chief

Fractal and Fractional (*Fractal Fract.*) is a scholarly online journal which provides a forum for discussion on new original models and methods in fractals and fractional calculus both from theory and applications. It is a peer-reviewed, open access journal that publishes high quality original research articles, review papers and short communications.

Editor-in-Chief

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