Design, Optimization and Applications for Fractional Chaotic System

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Deadline for manuscript submissions:
15 December 2024

Message from the Guest Editors

The field of fractional-order chaotic circuits and systems refers to a class of electronics that incorporate concepts from fractional calculus into their chaotic behavioral modeling and design. Using these concepts to design analog and digital circuits is the focus of research on their integration into electronic circuits, filters, chaotic oscillators, memory devices, and control systems. The fractional order offered with these design approaches provides additional flexibility and tuning for target specifications. Additionally, the use of evolutionary algorithms for optimizing fractional order chaotic systems, biological materials, energy storage devices, secure communication systems, and circuit elements with fractional-order impedances are being widely explored.

The focus of this Special Issue is to continue to advance research on topics relating to the theory, design, implementation, optimization, and application of fractional and integer order chaotic circuits and systems.

Special Issue