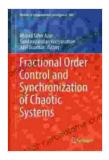
Fractional Order Control and Synchronization of Chaotic Systems: In-Depth Studies and Practical Applications



Fractional Order Control and Synchronization of Chaotic Systems (Studies in Computational Intelligence

Book 688) by Ahmad Taher Azar

★★★★★ 5 out of 5

Language : English

File size : 52052 KB

Text-to-Speech : Enabled

Screen Reader : Supported

Enhanced typesetting : Enabled

Print length : 1470 pages



The study of fractional Free Download control and synchronization of chaotic systems has emerged as a vibrant and rapidly evolving field in recent years. Fractional Free Download control involves the application of fractional calculus to the design of control systems, providing a powerful framework for modeling and controlling complex dynamical systems. Chaotic systems, characterized by their unpredictable and highly sensitive behavior, present unique challenges and opportunities for control engineers. The synchronization of chaotic systems involves aligning the dynamics of two or more chaotic systems, enabling the manipulation and exploitation of their chaotic properties.

This comprehensive book delves into the theoretical foundations, practical applications, and current research advancements in the field of fractional Free Download control and synchronization of chaotic systems. Written by leading experts in the field, the book provides a thorough understanding of the fundamental concepts, techniques, and challenges associated with this exciting area of research.

Theoretical Foundations

The book begins by laying the mathematical foundation for fractional Free Download control and synchronization. It introduces fractional calculus and its applications in modeling complex dynamical systems. The fundamental principles of fractional Free Download control are then presented, including the formulation of fractional Free Download PID controllers and their stability analysis. The book also covers the theory of chaotic systems, including their dynamical properties, bifurcation analysis, and control challenges.

Practical Applications

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The book keeps readers up-to-date with the latest research advancements in the field. It presents cutting-edge research on fractional Free Download control of fractional Free Download chaotic systems, adaptive and intelligent control of chaotic systems, and the synchronization of complex networks of chaotic systems. The book also discusses emerging applications of fractional Free Download control and synchronization, such as in artificial intelligence, machine learning, and quantum computing.

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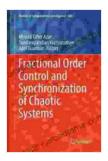
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- Enhance your knowledge and skills in this rapidly evolving area of research.

Target Audience

This book is an essential resource for researchers, engineers, and students working in the fields of control theory, nonlinear dynamics, complex systems, and fractional calculus. It is also a valuable reference for anyone interested in the latest advancements in the control and synchronization of chaotic systems.

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