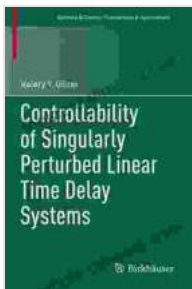# Controllability of Singularly Perturbed Linear Time Delay Systems

Singularly perturbed linear time delay systems are a class of dynamical systems that arise in a variety of applications, such as control engineering, robotics, and fluid dynamics. These systems are characterized by the presence of two or more time scales, with one or more of the time scales being much faster than the others. This can lead to complex and challenging control problems.

Controllability of Singularly Perturbed Linear Time Delay Systems (Systems & Control: Foundations & Applications) by Valery Y. Glizer

★★★★★ 5 out of 5

Language : English
File size : 6488 KB
Print length : 431 pages

The controllability of singularly perturbed linear time delay systems is a fundamental property that determines whether or not it is possible to steer the system from any initial state to any desired final state in a finite amount of time. This property is important for the design of control systems for these systems, as it determines whether or not it is possible to achieve the desired control objectives.

Unified Framework for Analysis and Design

This book presents a unified framework for the analysis and design of control systems for singularly perturbed linear time delay systems. This framework is based on the use of singular perturbation theory, which is a mathematical technique that can be used to analyze and design control systems for systems with multiple time scales.

The unified framework presented in this book provides a systematic approach to the analysis and design of control systems for singularly perturbed linear time delay systems. This framework can be used to design control systems that are robust to the presence of time delays and that can achieve the desired control objectives.
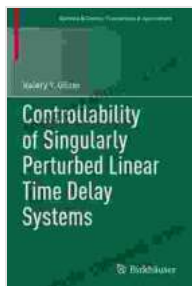
New Results and Techniques

This book also develops new results and techniques for studying the controllability properties of singularly perturbed linear time delay systems. These results and techniques can be used to analyze the controllability of these systems and to design control systems that are robust to the presence of time delays.

The new results and techniques presented in this book provide a valuable contribution to the field of control theory. These results and techniques can be used to improve the performance of control systems for singularly perturbed linear time delay systems and to design control systems that are more robust to the presence of time delays.

This book provides a comprehensive treatment of the controllability of singularly perturbed linear time delay systems. It presents a unified framework for the analysis and design of control systems for such systems, and it develops new results and techniques for studying their controllability

properties. The book is a valuable resource for researchers and practitioners in the field of control theory.

Controllability of Singularly Perturbed Linear Time Delay Systems (Systems & Control: Foundations & Applications) by Valery Y. Glizer
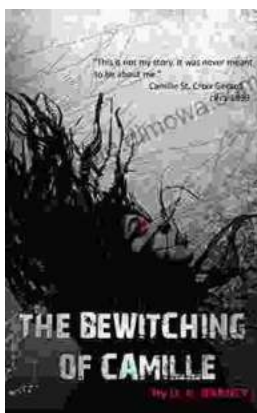
★★★★★ 5 out of 5

Language : English
File size : 6488 KB
Print length : 431 pages

Navigating the Silver Tsunami: Public Policy and the Old Age Revolution in Japan

Japan stands at the forefront of a demographic revolution that is shaping the future of countries worldwide—the rapid aging of its...

The Bewitching of Camille: A Mystical Tapestry of Witchcraft, Lineage, and Family

Prepare to be captivated by "The Bewitching of Camille: The Wiccan Chronicles," a mesmerizing novel that transports readers into a realm where...