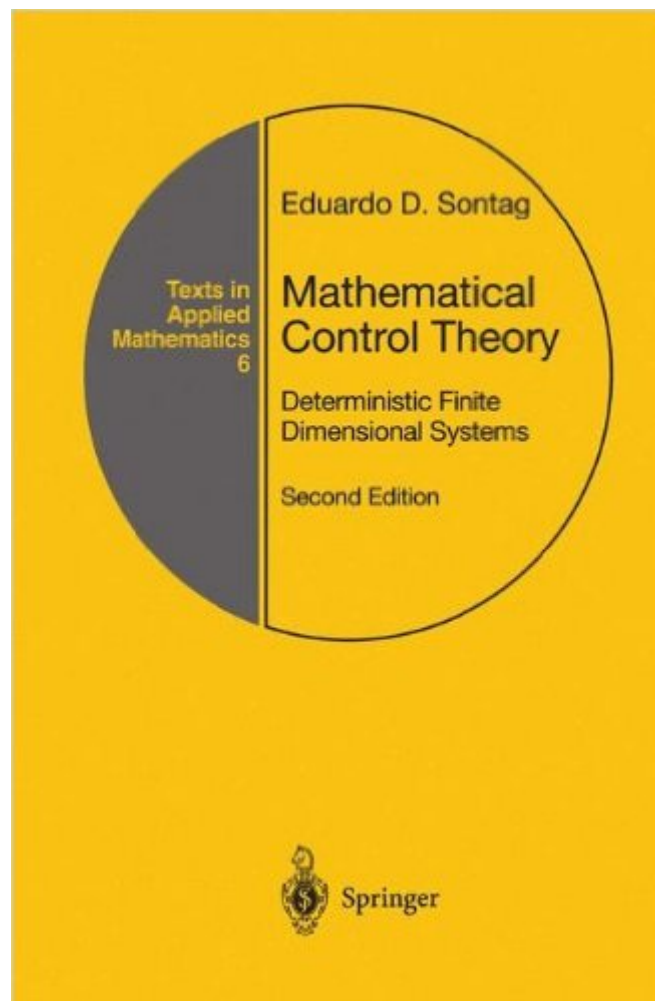# Mathematical Control Theory: Deterministic Finite Dimensional Systems (Texts In Applied Mathematics)

Synopsis

Geared primarily to an audience consisting of mathematically advanced undergraduate or beginning graduate students, this text may additionally be used by engineering students interested in a rigorous, proof-oriented systems course that goes beyond the classical frequency-domain material and more applied courses. The minimal mathematical background required is a working knowledge of linear algebra and differential equations. The book covers what constitutes the common core of control theory and is unique in its emphasis on foundational aspects. While covering a wide range of topics written in a standard theorem/proof style, it also develops the necessary techniques from scratch. In this second edition, new chapters and sections have been added, dealing with time optimal control of linear systems, variational and numerical approaches to nonlinear control, nonlinear controllability via Lie-algebraic methods, and controllability of recurrent nets and of linear systems with bounded controls.

Book Information

Series: Texts in Applied Mathematics (Book 6)

Paperback: 532 pages

Publisher: Springer; 2nd ed. 1998. Softcover reprint of the original 2nd ed. 1998 edition (November 15, 2013)

Language: English

ISBN-10: 1461268257

ISBN-13: 978-1461268253

Product Dimensions: 6.1 x 1.2 x 9.2 inches

Shipping Weight: 1.8 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #2,093,515 in Books (See Top 100 in Books)   #144 inÂ Books > Computers & Technology > Hardware & DIY > Microprocessors & System Design > Control Systems   #700 inÂ Books > Textbooks > Computer Science > Artificial Intelligence   #1347 inÂ Books > Computers & Technology > Computer Science > AI & Machine Learning > Intelligence & Semantics

Mathematical Control Theory: Deterministic Finite Dimensional Systems (Texts in Applied Mathematics) Asymptotic Theory of Finite Dimensional Normed Spaces: Isoperimetric Inequalities in Riemannian Manifolds (Lecture Notes in Mathematics) Numerical Partial Differential Equations: Finite Difference Methods (Texts in Applied Mathematics) Finite Dimensional Vector Spaces

Structural Acoustics: Deterministic and Random Phenomena Finite Mathematics: An Applied Approach Finite Mathematics: An Applied Approach, 11th Edition Finite Mathematics and Applied Calculus, 5th Edition Applied Finite Mathematics Finite Difference Methods for Ordinary and Partial Differential Equations: Steady-State and Time-Dependent Problems (Classics in Applied Mathematics) The Finite Element Method: Linear Static and Dynamic Finite Element Analysis (Dover Civil and Mechanical Engineering) Nonlinear Systems: Analysis, Stability, and Control (Interdisciplinary Applied Mathematics) The Infinite-Dimensional Topology of Function Spaces, Volume 64 (North-Holland Mathematical Library) Applied Control Theory for Embedded Systems (Embedded Technology) Books of Breathing and Related Texts -Late Egyptian Religious Texts in the British Museum Vol.1 (Catalogue of the Books of the Dead and Other Religious Texts in the British Museum) Handbook of Mathematical Functions: with Formulas, Graphs, and Mathematical Tables (Dover Books on Mathematics) Mathematical Biology: I. An Introduction (Interdisciplinary Applied Mathematics) (Pt. 1) Mathematical Physiology (Interdisciplinary Applied Mathematics) Pocket Book of Integrals and Mathematical Formulas, 5th Edition (Advances in Applied Mathematics) Mathematical Biology II: Spatial Models and Biomedical Applications (Interdisciplinary Applied Mathematics) (v. 2)