Record Nr. UNINA9911019490303321 Autore Tanaka Kazuo <1962-> Titolo Fuzzy control systems design and analysis: a linear matrix inequality approach / / Kazuo Tanaka and Hua O. Wang New York, : Wiley, c2001 Pubbl/distr/stampa **ISBN** 9786610367658 9781280367656 1280367652 9780470352212 0470352213 9780471465225 0471465224 9780471224594 0471224596 Descrizione fisica 1 online resource (321 p.) Altri autori (Persone) WangHua O Disciplina 629.832 Soggetti Linear control systems Fuzzy systems Inglese Lingua di pubblicazione **Formato** Materiale a stampa Livello bibliografico Monografia "A Wiley-Interscience publication." Note generali Nota di bibliografia Includes bibliographical references and index. FUZZY CONTROL SYSTEMS DESIGN AND ANALYSIS; CONTENTS: Nota di contenuto PREFACE; ACRONYMS; 1 INTRODUCTION; 1.1 A Control Engineering Approach to Fuzzy Control; 1.2 Outline of This Book; 2 TAKAGI-SUGENO FUZZY MODEL AND PARALLEL DISTRIBUTED COMPENSATION; 2.1 Takagi-Sugeno Fuzzy Model; 2.2 Construction of Fuzzy Model; 2.2.1 Sector Nonlinearity; 2.2.2 Local Approximation in Fuzzy Partition Spaces: 2.3 Parallel Distributed Compensation; 2.4 A Motivating Example; 2.5 Origin of the LMI-Based Design Approach; 2.5.1 Stable Controller Design via Iterative Procedure 2.5.2 Stable Controller Design via Linear Matrix Inequalities2.6 Application: Inverted Pendulum on a Cart; 2.6.1 Two-Rule Modeling and Control; 2.6.2 Four-Rule Modeling and Control; Bibliography; 3 LMI

CONTROL PERFORMANCE CONDITIONS AND DESIGNS; 3.1 Stability

Conditions; 3.2 Relaxed Stability Conditions; 3.3 Stable Controller

3.6 Initial State Independent Condition; 3.7 Disturbance Rejection; 3.8 Design Example: A Simple Mechanical System 3.8.1 Design Case 1: Decay Rate 3.8.2 Design Case 2: Decay Rate + Constraint on the Control Input; 3.8.3 Design Case 3: Stability + Constraint on the Control Input; 3.8.4 Design Case 4: Stability + Constraint on the Control Input + Constraint on the Output; References: 4 FUZZY OBSERVER DESIGN: 4.1 Fuzzy Observer: 4.2 Design of Augmented Systems; 4.2.1 Case A; 4.2.2 Case B; 4.3 Design Example; References; 5 ROBUST FUZZY CONTROL; 5.1 Fuzzy Model with Uncertainty; 5.2 Robust Stability Condition; 5.3 Robust Stabilization; References; 6 OPTIMAL FUZZY CONTROL 6.1 Quadratic Performance Function and Stabilization Control6.2 Optimal Fuzzy Controller Design: Appendix to Chapter 6: References: 7 ROBUST-OPTIMAL FUZZY CONTROL; 7.1 Robust-Optimal Fuzzy Control Problem; 7.2 Design Example: TORA; References; 8 TRAJECTORY CONTROL OF A VEHICLE WITH MULTIPLE TRAILERS; 8.1 Fuzzy Modeling of a Vehicle with Triple-Trailers; 8.1.1 Avoidance of Jack-Knife Utilizing Constraint on Output; 8.2 Simulation Results; 8.3 Experimental Study; 8.4 Control of Ten-Trailer Case: References: 9 FUZZY MODELING AND CONTROL OF CHAOTIC SYSTEMS; 9.1 Fuzzy Modeling of Chaotic Systems 9.2 Stabilization 9.2.1 Stabilization via Parallel Distributed Compensation; 9.2.2 Cancellation Technique; 9.3 Synchronization; 9.3.1 Case 1; 9.3.2 Case 2; 9.4 Chaotic Model Following Control; References; 10 FUZZY DESCRIPTOR SYSTEMS AND CONTROL; 10.1 Fuzzy Descriptor System; 10.2 Stability Conditions; 10.3 Relaxed Stability Conditions; 10.4 Why Fuzzy Descriptor Systems?; References; 11 NONLINEAR MODEL FOLLOWING CONTROL; 11.1 Introduction; 11.2 Design Concept; 11.2.1 Reference Fuzzy Descriptor System; 11.2.2 Twin-Parallel Distributed Compensations; 11.2.3 The Common B Matrix Case 11.3 Design Examples

Design; 3.4 Decay Rate; 3.5 Constraints on Control Input and Output; 3.5.1 Constraint on the Control Input; 3.5.2 Constraint on the Output;

Sommario/riassunto

A comprehensive treatment of model-based fuzzy control systems This volume offers full coverage of the systematic framework for the stability and design of nonlinear fuzzy control systems. Building on the Takagi-Sugeno fuzzy model, authors Tanaka and Wang address a number of important issues in fuzzy control systems, including stability analysis, systematic design procedures, incorporation of performance specifications, numerical implementations, and practical applications. Issues that have not been fully treated in existing texts, such as stability analysis, systematic design, and

Record Nr. UNINA9910967690603321 Autore Norton Peter <1957-> **Titolo** Episcopal elections 250-600: hierarchy and popular will in late antiquity / / Peter Norton Oxford;; New York,: Oxford University Press, 2007 Pubbl/distr/stampa **ISBN** 9786611145323 9781281145321 1281145327 9780191525872 0191525871 9780191708701 0191708704 Descrizione fisica xi, 271 p Collana Oxford classical monographs 262/.1213 Disciplina Soggetti Bishops - Appointment, call, and election - History Clergy - Appointment, call, and election - History Church history - Primitive and early church, ca. 30-600 Election law (Canon law) Inglese Lingua di pubblicazione **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references (p. [260]-266) and index. Nota di bibliografia Legislation and theory -- The electorate: local communities and public Nota di contenuto disorder -- Imperial intervention -- Provinces and patriarchs: organizational structures -- The metropolitan system in the West --The Eastern metropolitans -- Corruption, constraint, and nepotism --Three disputed elections. A refutation of the conventional view that after the adoption of Sommario/riassunto Christianity by the Roman empire the local community lost its voice in the appointment of bishops. Peter Norton argues that this right remained for longer than is normally assumed, with important consequences for our understanding of the administration of the later empire.