1. Record Nr. UNIPARTHENOPE000013845

Autore	International Astronomical Union Symposium : <16. ; : 1961
Titolo	The Solar corona : proceedings of International Astronomical Union Symposium n. 16, held at Cloudcroft, New Mexico, U.S.A. 28-30 August 1961 / ed. by John W. Evans ; [sponsored by the air Force Cambridge Research Laboratoires]
Pubbl/distr/stampa	New York ; London : Academic Press, 1963
Descrizione fisica	XI, 344 p. ; 22 cm
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Lingua di pubblicazione	Inglese
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Autore	Lin Feng
Titolo	Robust control design [[electronic resource]] : an optimal control approach / / Feng Lin
Pubbl/distr/stampa	Chichester, West Sussex, England ; ; Hoboken, NJ, : John Wiley/RSP, c2007
ISBN	1-281-00210-0 9786611002107 0-470-05957-5 0-470-05956-7
Descrizione fisica	1 online resource (380 p.)
Collana	RSP series in control theory and applications
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Soggetti	Automatic control
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.

Nota di bibliografia	Includes bibliographical references (p. [351]-361) index.
Nota di contenuto	Robust Control Design; Contents; Preface; Notation; 1 Introduction; 1.1 Systems and Control; 1.2 Modern Control Theory; 1.3 Stability; 1.4 Optimal Control; 1.5 Optimal Control Approach; 1.6 Kharitonov Approach; 1.7 H and H2 Control; 1.8 Applications; 1.9 Use of this Book; 2 Fundamentals of Control Theory; 2.1 State Space Model; 2.2 Responses of Linear Systems; 2.3 Similarity Transformation; 2.4 Controllability and Observability; 2.5 Pole Placement by State Feedback; 2.6 Pole Placement Using Observer; 2.7 Notes and References; 2.8 Problems; 3 Stability Theory 3.1 Stability and Lyapunov Theorem3.2 Linear Systems; 3.3 Routh-Hurwitz Criterion; 3.4 Nyquist Criterion; 3.5 Stabilizability and Detectability; 3.6 Notes and References; 3.7 Problems; 4 Optimal Control and Optimal Observers; 4.1 Optimal Control Problem; 4.2 Principle of Optimality; 4.3 Hamilton-Jacobi-Bellman Equation; 4.4 Linear Quadratic Regulator Problem; 4.5 Kalman Filter; 4.6 Notes and References; 4.7 Problems; 5 Robust Control of Linear Systems; 5.1 Introduction; 5.2 Matched Uncertainty; 5.3 Unmatched Uncertainty; 5.4 Uncertainty in the Input Matrix; 5.5 Notes and References 5.6 Problems6 Robust Control of Nonlinear Systems; 6.1 Introduction; 6.2 Matched Uncertainty; 6.3 Unmatched Uncertainty; 6.4 Uncertainty in the Input Matrix; 6.5 Notes and References; 6.6 Problems; 7 Kharitonov Approach; 7.1 Introduction; 7.2 Preliminary Theorems; 7.3 Kharitonov Theorem; 7.4 Control Design Using Kharitonov Theorem; 7.5 Notes and References; 7.6 Problems; 8 H and H2 Control; 8.1 Introduction; 8.2 Function Space; 8.3 Computation of H2 and H Norms; 8.4 Robust Control Problem as H2 and H Control Problem; 8.5 H2/H<&infinity > Control Synthesis8.6 Notes and References; 8.7 Problems; 9 Robust Active Damping; 9.1 Introduction; 9.2 Problem Formulation; 9.3 Robust Active Damping Design; 9.4 Active Vehicle Suspension System; 9.5 Discussion; 9.6 Notes and References; 10 Robust Control of Manipulators; 10.1 Robot Dynamics; 10.2 Problem Formulation; 10.3 Robust Control Design; 10.4 Simulations; 10.5 Notes and References; 11 Aircraft Hovering Control; 11.1 Modelling and Problem Formulation; 11.2 Control Design for Jet-borne Hovering; 11.3 Simulation; 11.4 Notes and References Appendix A: Mathematical Modelling of Physical SystemsReferences and Bibliography; Index
Sommario/riassunto	Comprehensive and accessible guide to the three main approaches to robust control design and its applications Optimal control is a mathematical field that is concerned with control policies that can be deduced using optimization algorithms. The optimal control approach to robust control design differs from conventional direct approaches to robust control that are more commonly discussed by firstly translating the robust control problem into its optimal control counterpart, and then solving the optimal control problem. Robust Control Design: An Optimal Control Approach offers