1. Record Nr. UNINA9910783720903321 Autore Yurkevich Valery D Titolo Design of nonlinear control systems with the highest derivative in feedback [[electronic resource] /] / Valery D. Yurkevich Singapore;; Hackensack, NJ,: World Scientific, c2004 Pubbl/distr/stampa 1-281-88095-7 **ISBN** 9786611880958 981-256-924-3 Descrizione fisica 1 online resource (374 p.) Collana Series on stability, vibration, and control of systems. Design of nonlinear control systems with the highest derivative in feedback Series on stability, vibration, and control of systems. Series A;; v. 16 629.8 Disciplina 629.836 Soggetti Nonlinear control theory Nonlinear theories Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Preface; Contents; Chapter 1 Regularly and singularly perturbed systems; Chapter 2 Design goal and reference model; Chapter 3 Methods of control system design under uncertainty; Chapter 4 Design of SISO continuous-time control systems; Chapter 5 Advanced design of SISO continuous-time control systems; Chapter 6 Influence of unmodeled dynamics; Chapter 7 Realizability of desired output behavior; Chapter 8 Design of MIMO continuous-time control systems; Chapter 9 Stabilization of internal dynamics; Chapter 10 Digital controller design based on pseudo-continuous approach Chapter 11 Design of discrete-time control systemsChapter 12 Design of sampled-data control systems; Chapter 13 Control of distributed parameter systems; Appendix A Proofs; Appendix B Notation system; Bibliography; Index Sommario/riassunto This unique book presents an analytical uniform design methodology ofcontinuous-time or discrete-time nonlinear control system design

whichguarantees desired transient performances in the presence of plantparameter variations and unknown external disturbances.