1. Record Nr.	UNINA9911019151503321
Autore	Farrell Jay
Titolo	Adaptive approximation based control : unifying neural, fuzzy and traditional adaptive approximation approaches / / Jay A. Farrell, Marios M. Polycarpou
Pubbl/distr/stampa	Hoboken, N.J., : Wiley-Interscience, c2006
ISBN	9786610448043
	9781280448041
	1280448040
	9780470325018
	0470325011
	9780471781813
	0471781819
	9780471781806
	0471781800
Descrizione fisica	1 online resource (440 p.)
Collana	Wiley series in adaptive and learning systems for signal processing, communication and control
Altri autori (Persone)	PolycarpouMarios
Disciplina	629.8/36
Soggetti	Adaptive control systems
	Feedback control systems
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. 401-415) and index.
Nota di contenuto	ADAPTIVE APPROXIMATION BASED CONTROL; CONTENTS; Preface; 1 Introduction; 1.1 Systems and Control Terminology; 1.2 Nonlinear Systems; 1.3 Feedback Control Approaches; 1.3.1 Linear Design; 1.3.2 Adaptive Linear Design; 1.3.3 Nonlinear Design; 1.3.4 Adaptive Approximation Based Design; 1.3.5 Example Summary; 1.4 Components of Approximation Based Control; 1.4.1 Control Architecture; 1.4.2 Function Approximator; 1.4.3 Stable Training Algorithm; 1.5 Discussion and Philosophical Comments; 1.6 Exercises and Design Problems; 2 Approximation Theory; 2.1 Motivating Example; 2.2 Interpolation
	2.3 Function Approximation2.3.1 Offline (Batch) Function Approximation; 2.3.2 Adaptive Function Approximation; 2.4

Sommario/riassunto	A highly accessible and unified approach to the design and analysis of intelligent control systemsAdaptive Approximation Based Control is a tool every control designer should have in his or her control toolbox. Mixing approximation theory, parameter estimation, and feedback control, this book presents a unified approach designed to enable readers to apply adaptive approximation based control to existing systems, and, more importantly, to gain enough intuition and understanding to manipulate and combine it with other control tools for applications that have not been encountered b