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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 Approximation 2.3.1 Offline (Batch) Function Approximation; 2.3.2 Adaptive Function Approximation; 2.4 Approximator Properties; 2.4.1 Parameter (Non) Linearity; 2.4.2 Classical Approximation Results; 2.4.3 Network Approximators; 2.4.4 Nodal Processors; 2.4.5 Universal Approximator; 2.4.6 Best Approximator Property; 2.4.7 Generalization; 2.4.8 Extent of Influence

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4.6 Robust Learning Algorithms

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## Sommario/riassunto

A highly accessible and unified approach to the design and analysis of intelligent control systems Adaptive 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

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