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Titolo	Adaptive Systems [[electronic resource]] : An Introduction / / by Iven Mareels, Jan Willem Polderman
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Formato	Materiale a stampa
Livello bibliografico	Monografia
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1 Adaptive Systems -- 1.1 Introduction -- 1.2 Adaptive systems: examples -- 1.3 General structure of adaptive control systems -- 1.4 Illustrating the concepts -- 1.5 Summary of chapter -- 1.6 Notes and references -- 1.7 Exercises -- 2 Systems And Their Representations -- 2.1 Introduction -- 2.2 Notation -- 2.3 The behavior -- 2.4 Latent variables -- 2.5 Equivalent representations -- 2.6 Controllability -- 2.7 Observability -- 2.8 Stability -- 2.9 Elimination of Latent variables -- 2.10 The ring $\mathbb{R}[z]$ -- 2.11 An example -- 2.12 A word about the notation -- 2.13 Summary of chapter -- 2.14 Notes and references -- 3 Adaptive systems : principles of identification -- 3.1 Introduction -- 3.2 Object of interest and model class -- 3.3 Identification criterion and algorithms -- 3.4 Data model assumptions -- 3.5 Analysis of identification algorithms -- 3.6 Persistency of excitation -- 3.7 Summary of chapter -- 3.8 Notes and references -- 3.9 Exercises -- 4 Adaptive Pole Assignment -- 4.1 Introduction -- 4.2 Preliminaries -- 4.3 The system and its representations -- 4.4 Equilibrium analysis -- 4.5 An algorithm for adaptive pole assignment -- 4.6 Analysis of the algorithm -- 4.7 Filtered signals -- 4.8 Modification of the projection

algorithm -- 4.9 Summary of chapter -- 4.10 Notes and references -- 4.11 Exercises -- 5 Direct Adaptive Model Reference Control -- 5.1 Introduction -- 5.2 Basic problem definition -- 5.3 Model reference control: nonadaptive solution -- 5.4 Error model construction -- 5.5 Equilibrium analysis -- 5.6 Adaptive algorithm -- 5.7 Analysis of the adaptive system -- 5.8 Adaptive model reference control with disturbance rejection -- 5.9 Summary of chapter -- 5.10 Notes and references -- 5.11 Exercises -- 6 Universal Controllers -- 6.1 Introduction -- 6.2 Existence of solutions -- 6.3 The first order case -- 6.4 Higher order systems -- 6.5 Mårtensson's algorithm -- 6.6 Summary of chapter -- 6.7 Notes and references -- 6.8 Exercises -- 7 The pole/zero cancellation problem -- 7.1 Introduction -- 7.2 The pole/zero cancellation problem in adaptive control -- 7.3 Combining direct and indirect adaptive control -- 7.4 Adaptive Excitation -- 7.5 A more fundamental viewpoint -- 7.6 Conclusions -- 7.7 Summary of chapter -- 7.8 Notes and references -- 7.9 Exercises -- 8 Averaging Analysis For Adaptive Systems -- 8.1 Introduction -- 8.2 Averaging -- 8.3 Transforming an adaptive system into standard form -- 8.4 Averaging approximation -- 8.5 Application: the MIT rule for adaptive control -- 8.6 Application: echo cancellation in telephony -- 8.7 Summary of chapter -- 8.8 Notes and references -- 8.9 Exercises -- 9 Dynamics of adaptive systems: A case study -- 9.1 Introduction -- 9.2 The example -- 9.3 Global analysis and bifurcations -- 9.4 Adaptive system behavior: ideal case -- 9.5 Adaptive system behavior: undermodelled case -- 9.6 Discussion -- 9.7 Summary of chapter -- 9.8 Notes and References -- 9.9 Exercises -- Epilogue -- A Background material -- A.1 A contraction result -- A.2 The Comparison Principle -- A.2.1 Bellman-Gronwall Lemma -- A.2.2 Perturbed linear stable systems -- A.3 Miscellaneous stability results -- A.3.1 Stability Definitions -- A.3.2 Some Lyapunov stability results -- A.4 Detectability -- A.5 An inequality for linear systems -- A.6 Finite horizon averaging result -- A.7 Maple code for solving Lyapunov equations -- A.8 Maple code for fixed points and two periodic solutions.

Sommario/riassunto

Loosely speaking, adaptive systems are designed to deal with, to adapt to, changing environmental conditions whilst maintaining performance objectives. Over the years, the theory of adaptive systems evolved from relatively simple and intuitive concepts to a complex multifaceted theory dealing with stochastic, nonlinear and infinite dimensional systems. This book provides a first introduction to the theory of adaptive systems. The book grew out of a graduate course that the authors taught several times in Australia, Belgium, and The Netherlands for students with an engineering and/or mathematics background. When we taught the course for the first time, we felt that there was a need for a textbook that would introduce the reader to the main aspects of adaptation with emphasis on clarity of presentation and precision rather than on comprehensiveness. The present book tries to serve this need. We expect that the reader will have taken a basic course in linear algebra and multivariable calculus. Apart from the basic concepts borrowed from these areas of mathematics, the book is intended to be self contained.

2. Record Nr.	UNINA9910452800703321
Autore	Tuckman Jo
Titolo	Mexico [[electronic resource]] : democracy interrupted / / Jo Tuckman
Pubbl/distr/stampa	New Haven, : Yale University Press, c2012
ISBN	1-280-78069-X 9786613691088 0-300-16032-1
Descrizione fisica	1 online resource (311 p., [8] p. of plates) : ill., map
Disciplina	972
Soggetti	Political culture - Mexico Political corruption - Mexico Democratization - Mexico Electronic books. Mexico Politics and government 2000-
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index. Formerly CIP.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Frontmatter -- Contents -- List of Illustrations -- Acknowledgements -- Introduction -- Chapter 1. Narco Trouble -- Chapter 2. Political Wastelands -- Chapter 3. The Misrule of Law -- Chapter 4. Lapsed Catholics -- Chapter 5. A Bungled War -- Chapter 6. Not Good Enough -- Chapter 7. Environmental Time Bombs -- Chapter 8. Left Behind? -- Chapter 9. Unfinished Story -- Sources -- Index
Sommario/riassunto	In 2000, Mexico's long invincible Institutional Revolutionary Party (PRI) lost the presidential election to Vicente Fox of the National Action Party (PAN). The ensuing changeover-after 71 years of PRI dominance-was hailed as the beginning of a new era of hope for Mexico. Yet the promises of the PAN victory were not consolidated. In this vivid account of Mexico's recent history, a journalist with extensive reporting experience investigates the nation's young democracy, its shortcomings and achievements, and why the PRI is favored to retake the presidency in 2012.Jo Tuckman reports on the murky, terrifying world of Mexico's drug wars, the counterproductive government

strategy, and the impact of U.S. policies. She describes the reluctance and inability of politicians to seriously tackle rampant corruption, environmental degradation, pervasive poverty, and acute inequality. To make matters worse, the influence of non-elected interest groups has grown and public trust in almost all institutions-including the Catholic church-is fading. The pressure valve once presented by emigration is also closing. Even so, there are positive signs: the critical media cannot be easily controlled, and small but determined citizen groups notch up significant, if partial, victories for accountability. While Mexico faces complex challenges that can often seem insurmountable, Tuckman concludes, the unflagging vitality and imagination of many in Mexico inspire hope for a better future.
