

1. Record Nr.	UNINA9910459626903321
Titolo	Control system applications // edited by William S. Levine
Pubbl/distr/stampa	Boca Raton : , : CRC Press, , 2011
ISBN	1-315-21872-0 1-4200-7361-3
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (944 p.)
Collana	The electrical engineering handbook series Control handbook
Altri autori (Persone)	LevineW. S
Disciplina	629.8
Soggetti	Automatic control Control theory Electronic books.
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 and index.
Nota di contenuto	Front cover; Contents; Preface to the Second Edition; Acknowledgments; Editorial Board; Editor; Contributors; Part I: Automotive; Chapter 1. Linear Parameter-Varying Control of Nonlinear Systems with Applications to Automotive and Aerospace Controls*; Chapter 2. Powertrain Control*; Chapter 3. Vehicle Controls; Chapter 4. Model-Based Supervisory Control for Energy Optimization of Hybrid-Electric Vehicles; Chapter 5. Purge Scheduling for Dead-Ended Anode Operation of PEM Fuel Cells; Part II: Aerospace; Chapter 6. Aerospace Real-Time Control System and Software Chapter 7. Stochastic Decision Making and Aerial Surveillance Control Strategies for Teams of Unmanned Aerial VehiclesChapter 8. Control Allocation; Chapter 9. Swarm Stability; Part III: Industrial; Chapter 10. Control of Machine Tools and Machining Processes; Chapter 11. Process Control in Semiconductor Manufacturing; Chapter 12. Control of Polymerization Processes; Chapter 13. Multiscale Modeling and Control of Porous Thin Film Growth; Chapter 14. Control of Particulate Processes; Chapter 15. Nonlinear Model Predictive Control for Batch Processes Chapter 16. The Use of Multivariate Statistics in Process ControlChapter 17. Plantwide Control; Chapter 18. Automation and Control Solutions

for Flat Strip Metal Processing; Part IV: Biological and Medical; Chapter 19. Model-Based Control of Biochemical Reactors; Chapter 20. Robotic Surgery; Chapter 21. Stochastic Gene Expression: Modeling, Analysis, and Identification*; Chapter 22. Modeling the Human Body as a Dynamical System: Applications to Drug Discovery and Development; Part V: Electronics; Chapter 23. Control of Brushless DC Motors Chapter 24. Hybrid Model Predictive Control of the Boost ConverterPart VI: Networks; Chapter 25. The SNR Approach to Networked Control; Chapter 26. Optimization and Control of Communication Networks; Part VII: Special Applications; Chapter 27. Advanced Motion Control Design; Chapter 28. Color Controls: An Advanced Feedback System; Chapter 29. The Construction of Portfolios of Financial Assets: An Application of Optimal Stochastic Control; Chapter 30. Earthquake Response Control for Civil Structures; Chapter 31. Quantum Estimation and Control; Chapter 32. Motion Control of Marine Craft Chapter 33. Control of Unstable Oscillations in FlowsChapter 34. Modeling and Control of Air Conditioning and Refrigeration Systems; Index; Back cover

Sommario/riassunto

At publication, The Control Handbook immediately became the definitive resource that engineers working with modern control systems required. Among its many accolades, that first edition was cited by the AAP as the Best Engineering Handbook of 1996. Now, 15 years later, William Levine has once again compiled the most comprehensive and authoritative resource on control engineering. He has fully reorganized the text to reflect the technical advances achieved since the last edition and has expanded its contents to include the multidisciplinary perspective
