1.
Record Nr.	UNINA9910153109503321
Autore	Ogata Katsuhiko
Titolo	System dynamics / / Katsuhiko Ogata
Pubbl/distr/stampa	Harlow, England : , : Pearson, , [2014] Â©2014
ISBN	1-292-03849-7
Edizione	[Fourth edition, Pearson new international edition.]
Descrizione fisica	1 online resource (776 pages) : illustrations
Collana	Always learning
Disciplina	620.0015118
Soggetti	Engineering - Mathematical models Dynamics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover -- Table of Contents -- Chapter 1. Introduction to System Dynamics -- Chapter 2. The Laplace Transform -- Chapter 3. Mechanical Systems -- Chapter 4. Transfer-Function Approach to Modeling Dynamic Systems -- Chapter 5. State-Space Approach to Modeling Dynamic Systems -- Chapter 6. Electrical Systems and Electromechanical Systems -- Chapter 7. Fluid Systems and Thermal Systems -- Chapter 8. Time-Domain Analysis of Dynamic Systems -- Chapter 9. Frequency-Domain Analysis of Dynamic Systems -- Chapter 11. Frequency-Domain Analysis and Design of Control Systems -- Chapter 10. Time-Domain Analysis and Design of Control Systems -- Appendix A. Systems of Units -- Appendix B. Conversion Tables -- Appendix C. Vector-Matrix Algebra -- Appendix D. Introduction to MATLAB -- Reference -- Index -- 3.
Sommario/riassunto	For junior-level courses in System Dynamics, offered in Mechanical Engineering and Aerospace Engineering departments. This text presents students with the basic theory and practice of system dynamics. It introduces the modeling of dynamic systems and response analysis of these systems, with an introduction to the analysis and design of control systems.