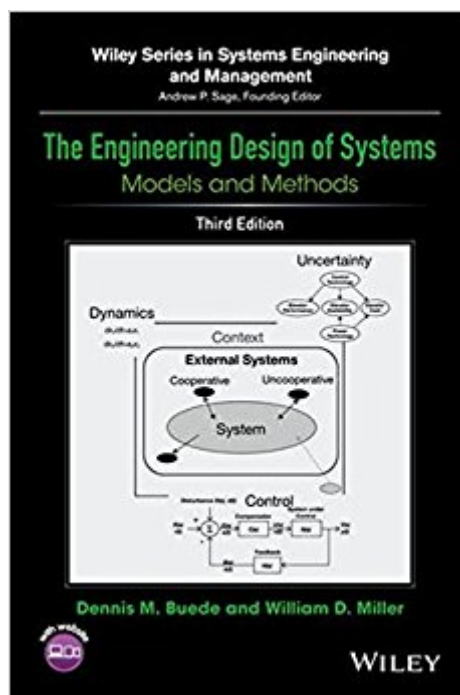


The book was found

# The Engineering Design Of Systems: Models And Methods (Wiley Series In Systems Engineering And Management)



## Synopsis

New for the third edition, chapters on: A Complete Exercise of the SE Process, A System Science and Analytics and The Value of Systems Engineering The book takes a model-based approach to key systems engineering design activities and introduces methods and models used in the real world. This book is divided into three major parts: (1) Introduction, Overview and Basic Knowledge, (2) Design and Integration Topics, (3) Supplemental Topics. The first part provides an introduction to the issues associated with the engineering of a system. The second part covers the critical material required to understand the major elements needed in the engineering design of any system: requirements, architectures (functional, physical, and allocated), interfaces, and qualification. The final part reviews methods for data, process, and behavior modeling, decision analysis, system science and analytics, and the value of systems engineering. Chapter 1 has been rewritten to integrate the new chapters and updates were made throughout the original chapters. Provides an overview of modeling, modeling methods associated with SysML, and IDEF0 Includes a new Chapter 12 that provides a comprehensive review of the topics discussed in Chapters 6 through 11 via a simple system – an automated soda machine Features a new Chapter 15 that reviews General System Theory, systems science, natural systems, cybernetics, systems thinking, quantitative characterization of systems, system dynamics, constraint theory, and Fermi problems and guesstimation Includes a new Chapter 16 on the value of systems engineering with five primary value propositions: systems as a goal-seeking system, systems engineering as a communications interface, systems engineering to avert showstoppers, systems engineering to find and fix errors, and systems engineering as risk mitigation The Engineering Design of Systems: Models and Methods, Third Edition is designed to be an introductory reference for professionals as well as a textbook for senior undergraduate and graduate students in systems engineering.

## Book Information

Series: Wiley Series in Systems Engineering and Management (Book 1)

Hardcover: 584 pages

Publisher: Wiley; 3 edition (February 29, 2016)

Language: English

ISBN-10: 111902790X

ISBN-13: 978-1119027904

Product Dimensions: 6.2 x 1.3 x 9.3 inches

Shipping Weight: 2 pounds (View shipping rates and policies)

Average Customer Review: 5.0 out of 5 stars 2 customer reviews

Best Sellers Rank: #108,438 in Books (See Top 100 in Books) #56 in Books > Computers & Technology > Computer Science > Systems Analysis & Design #177 in Books > Engineering & Transportation > Engineering > Electrical & Electronics > Electronics #632 in Books > Textbooks > Engineering

## Customer Reviews

New for the third edition, chapters on: Complete Exercise of the SE Process, System Science and Analytics and The Value of Systems Engineering The book takes a model-based approach to key systems engineering design activities and introduces methods and models used in the real world. This book is divided into three major parts: (1) Introduction, Overview and Basic Knowledge, (2) Design and Integration Topics, (3) Supplemental Topics. The first part provides an introduction to the issues associated with the engineering of a system. The second part covers the critical material required to understand the major elements needed in the engineering design of any system: requirements, architectures (functional, physical, and allocated), interfaces, and qualification. The final part reviews methods for data, process, and behavior modeling, decision analysis, system science and analytics, and the value of systems engineering. Chapter 1 has been rewritten to integrate the new chapters and updates were made throughout the original chapters. Provides an overview of modeling, modeling methods associated with SysML, and IDEF0 Includes a new Chapter 12 that provides a comprehensive review of the topics discussed in Chapters 6 through 11 via a simple system – an automated soda machine Features a new Chapter 15 that reviews General System Theory, systems science, natural systems, cybernetics, systems thinking, quantitative characterization of systems, system dynamics, constraint theory, and Fermi problems and guesstimation Includes a new Chapter 16 on the value of systems engineering with five primary value propositions: systems as a goal-seeking system, systems engineering as a communications interface, systems engineering to avert showstoppers, systems engineering to find and fix errors, and systems engineering as risk mitigation The Engineering Design of Systems: Models and Methods, Third Edition is designed to be an introductory reference for professionals as well as a textbook for senior undergraduate and graduate students in systems engineering. Dennis M. Buede, PhD, has thirty-nine years' experience in both the theoretical development and engineering application of systems engineering and decision-support technologies. Dr. Buede has applied systems engineering methods throughout the federal government. He has been a Professor at George Mason University and Stevens Institute of Technology, and is currently President of

Innovative Decisions, Inc. He is a Fellow of the International Council on Systems Engineering (INCOSE). William D. Miller is an Executive Principal Analyst at Innovative Decisions, Inc. and Adjunct Professor at the Stevens Institute of Technology. Mr. Miller has forty-two years' experience as an engineer, manager, consultant, and educator in the conceptualization and engineering application of communications technologies, products and services in commercial and government sectors. He is a 48-year member of the IEEE, the former Technical Director of INCOSE and the current Editor-in-Chief of INSIGHT.

Great SE Book.

good purchase

[Download to continue reading...](#)

The Engineering Design of Systems: Models and Methods (Wiley Series in Systems Engineering and Management) System Engineering Analysis, Design, and Development: Concepts, Principles, and Practices (Wiley Series in Systems Engineering and Management) Security Risk Management Body of Knowledge (Wiley Series in Systems Engineering and Management) The Engineering Design of Systems: Models and Methods Basics of R/C Model Aircraft Design: Practical Techniques for Building Better Models: Practical Techniques for Building Better Models Mouse Models of Allergic Disease: Methods and Protocols (Methods in Molecular Biology) Security Analysis on Wall Street: A Comprehensive Guide to Today's Valuation Methods (Wiley Nonprofit Law, Finance, and Management Series) Database Systems: Design, Implementation, and Management (with Premium Web Site Printed Access Card) (Management Information Systems) Functional Polymer Coatings: Principles, Methods, and Applications (Wiley Series on Polymer Engineering and Technology) Graphic Design Success: Over 100 Tips for Beginners in Graphic Design: Graphic Design Basics for Beginners, Save Time and Jump Start Your Success (graphic ... graphic design beginner, design skills) Implementing Enterprise Risk Management: From Methods to Applications (Wiley Finance) Derivatives Analytics with Python: Data Analysis, Models, Simulation, Calibration and Hedging (The Wiley Finance Series) Loss Models: From Data to Decisions (Wiley Series in Probability and Statistics) Introduction to Coastal Engineering and Management (Advanced Series on Ocean Engineering) (Advanced Series on Ocean Engineering (Paperback)) Crowd Management Made Easy: Models, methods and examples to keep your crowds safe Art Models 10: Photos for Figure Drawing, Painting, and Sculpting (Art Models series) Art Models 10 Companion Disk: Photos for Figure Drawing, Painting, and Sculpting (Art Models series) Art Models 6: The Female Figure in

Shadow and Light (Art Models series) Art Models 7: Dynamic Figures for the Visual Arts (Art Models series) Art Models 8: Practical Poses for the Working Artist (Art Models series)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)