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Titolo	Management of an inter-firm network / editor Yasuhiro Monden
Pubbl/distr/stampa	New Jersey : World Scientific, 2012
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Autore	Ravera, Marco
Titolo	Invito al pensiero di Baruch Spinoza / Marco Ravera
Pubbl/distr/stampa	Milano : Mursia, c1987
Descrizione fisica	230 p. ; 17 cm.
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Disciplina	199.492
Soggetti	Spinoza, Benedictus de
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Note generali	Numero di collezione sul dorso, erroneamente: 6 Tit. in cop.: Invito al pensiero di Spinoza Tit. sul dorso: Spinoza

3. Record Nr.	UNINA9910964004203321
Autore	Buedo Dennis M
Titolo	The Engineering Design of Systems : Models and Methods
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ISBN	9781119028062 9781119027904
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Descrizione fisica	1 online resource (583 pages)
Collana	Wiley Series in Systems Engineering and Management Ser.
Altri autori (Persone)	MillerWilliam D
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Nota di contenuto	<p>The Engineering Design of Systems: Models and Methods -- Contents</p> <p>-- Preface -- About the Companion Website -- Part 1: Introduction, Overview, and Basic Knowledge -- Chapter 1: Introduction to Systems Engineering -- 1.1 Introduction -- 1.2 Overview of the Engineering of Systems -- 1.3 Approaches for Implementing Systems Engineering -- 1.3.1 TTDSE -- 1.3.2 The Waterfall Model of Software Engineering -- 1.3.3 The Spiral Model of Software Engineering -- 1.3.4 Object-Oriented Design -- 1.4 Modeling Approaches for Systems Engineering -- 1.4.1 Modeling Approaches for TTDSE -- 1.4.2 UML -- 1.4.3 DoDAF -- 1.4.4 SysML -- 1.5 Introducing the Concept of Architectures -- 1.6 Requirements -- 1.7 System's Life Cycle -- 1.8 Design and Integration Process -- 1.9 Types of Systems -- 1.10 Summary -- Chapter 2: Overview of the Systems Engineering Design Process -- 2.1 Introduction -- 2.2 Design Process -- 2.2.1 Key Terms -- 2.2.2 Design -- 2.2.3 Integration and Qualification -- 2.3 Key Systems Engineering Concepts -- 2.3.1 Operational Concept -- 2.3.2 External Systems Diagram -- 2.3.3 Objectives Hierarchy -- 2.3.4 Requirements -- 2.3.5 Functions -- 2.3.6 Items -- 2.3.7 Components -- 2.3.8 Interfaces -- 2.3.9 Verification -- 2.3.10 Validation -- 2.3.11 Acceptance -- 2.4 Introduction to Sysml -- 2.5 Use of Core (Systems Engineering Tool) -- 2.5.1 Classes -- 2.5.2 Relations -- 2.5.3 Documents -- 2.6 Summary -- Chapter 3: Modeling and Sysml Modeling -- 3.1 Introduction -- 3.2</p>

Models and Modeling -- 3.3 Sysml Modeling -- 3.4 Meta-System Modeling -- 3.5 Static Behavioral Process Modeling With IDEF0 -- 3.5.1 IDEF0 Semantics or Elements -- 3.5.2 IDEF0 Diagram Syntax -- 3.5.3 IDEF0 Model Syntax -- 3.5.4 IDEF0 Advanced Concepts -- 3.5.5 Systems Engineering Use of IDEF0 Models -- 3.6 Dynamic Behavioral Process Modeling With EFFBDs.

3.7 Structural Modeling of the System'S Components -- 3.8 Requirements Modeling -- 3.9 Performance Modeling -- 3.10 Summary -- Chapter 4: Discrete Mathematics: Sets, Relations, and Functions -- 4.1 Introduction -- 4.2 Sets -- 4.2.1 Writing Set Membership -- 4.2.2 Describing Members of a Set -- 4.2.3 Special Sets -- 4.2.4 Operations on Sets -- 4.2.5 Partitions -- 4.2.6 Power Set -- 4.3 Relations -- 4.3.1 Ordered Pairs and Cartesian Products -- 4.3.2 Unary and Binary Relations -- 4.3.3 Properties of Unary Relations on A -- 4.3.4 Partial Ordering -- 4.3.5 Equivalence Relations -- 4.4 Functions -- 4.4.1 Definitions -- 4.4.2 Composition -- 4.5 Summary -- Chapter 5: Graphs and Directed Graphs (Digraphs) -- 5.1 Introduction -- 5.2 Terminology -- 5.3 Paths and Cycles -- 5.4 Connectedness -- 5.5 Adjacency and Reachability -- 5.6 Unary Relations and Digraphs -- 5.7 Ordering Relations -- 5.8 Isomorphisms -- 5.9 Trees -- 5.9.1 Spanning Trees -- 5.9.2 Directed Trees -- 5.9.3 Forest -- 5.10 Finding Cycles and Semicycles in a Graph -- 5.11 Revisiting IDEF0 Diagrams -- 5.12 Summary -- Part 2: Design and Integration -- Chapter 6: Requirements and Defining the Design Problem -- 6.1 Introduction -- 6.2 Requirements -- 6.3 Definitions -- 6.4 Stakeholders' Requirements Development: Defining the Design Problem -- 6.5 Requirements Categories -- 6.6 Requirements Partition -- 6.7 Stakeholders' Requirements Document (Stkhldrsrcd) -- 6.8 Characteristics of Sound Requirements -- 6.9 Writing Requirements -- 6.10 Operational Concept -- 6.11 External Systems Diagram -- 6.12 Objectives Hierarchy for Performance Requirements -- 6.13 Prototyping, Analyses, and Usability Testing -- 6.14 Defining the Stakeholders' Requirements -- 6.14.1 Input/Output Requirements -- 6.14.2 System-Wide and Technology Requirements -- 6.14.3 Trade-Off Requirements -- 6.14.4 Qualification Requirements.

6.15 Requirements Management -- 6.16 Summary -- Chapter 7: Functional Architecture Development -- 7.1 Introduction -- 7.2 Defining Terminology for a Functional Architecture -- 7.3 Functional Architecture Development -- 7.3.1 Functional Architecture Process Model -- 7.3.2 Decomposition versus Composition -- 7.4 Defining a System'S Functions -- 7.4.1 Approaches for Defining Functions -- 7.4.2 Typical Functional Decompositions by Life Cycle Phase -- 7.4.3 Feedback and Control in Functional Design -- 7.4.4 Evaluation of a Functional Hierarchy -- 7.5 Development of the Functional Decomposition -- 7.6 Finishing the Functional Architecture -- 7.7 Tracing Requirements to Elements of the Functional Architecture -- 7.8 Summary -- Chapter 8: Physical Architecture Development -- 8.1 Introduction -- 8.2 Generic Versus Instantiated Physical Architectures -- 8.3 Overview of Physical Architecture Development -- 8.4 Creativity Techniques -- 8.4.1 Morphological Box -- 8.4.2 Option Creation Techniques -- 8.5 Graphic Representations of the Physical Architecture -- 8.6 Issues in Physical Architecture Development -- 8.6.1 Major Concepts for Physical Architectures -- 8.6.2 Design Flexibility -- 8.6.3 Design Advantages of Product Platforms -- 8.6.4 Use of Redundancy to Achieve Fault Tolerance -- 8.7 Summary -- Chapter 9: Allocated Architecture Development -- 9.1 Introduction -- 9.2 Overview -- 9.3 Allocate Functions to Components -- 9.3.1 Define the Allocation Problem -- 9.3.2 Approaches for Solving the Allocation Problem --

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as a Communications Interface -- 16.2.3 Systems Engineering to Avert Showstoppers -- 16.2.4 Systems Engineering to Find and Fix Errors -- 16.2.5 Systems Engineering as Risk Mitigation.  
16.2.6 Continuous Improvement.

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## Sommario/riassunto

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.

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