

1. Record Nr.	UNINA9910153111903321
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Titolo	Systems engineering and analysis // Benjamin Blanchard and Wolter Fabrycky
Pubbl/distr/stampa	Harlow, England : , : Pearson, , [2014] ©2014
ISBN	1-292-03839-X
Edizione	[Fifth edition, Pearson new international editon.]
Descrizione fisica	1 online resource (841 pages) : illustrations, tables
Collana	Always learning
Disciplina	620.001171
Soggetti	Systems engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Cover -- Table of Contents -- 1. Systems Science and Engineering -- 2. Bringing Systems Into Being -- 3. Conceptual System Design -- 4. Preliminary System Design -- 5. Detail Design and Development -- 6. System Test, Evaluation, and Validation -- 7. Alternatives and Models in Decision Making -- 8. Models for Economic Evaluation -- 9. Optimization in Design and Operations -- 10. Queuing Theory and Analysis -- 11. Control Concepts and Methods -- 12. Design for Reliability -- 13. Design for Maintainability -- 14. Design for Usability (Human Factors) -- 15. Design for Logistics and Supportability -- 16. Design for Producibility, Disposability, and Sustainability -- 17. Design for Affordability (Life-cycle Costing) -- 18. Systems Engineering Planning and Organization -- 19. Program Management, Control, and Evaluation -- Appendix: Functional Analysis -- Appendix: Design and Management Checklists -- Appendix: Probability Theory and Analysis -- Appendix: Probability and Statistical Tables -- Appendix: Interest Factor Tables -- Appendix: Finite Queuing Tables -- Index.
Sommario/riassunto	For senior-level undergraduate and first and second year graduate systems engineering and related courses. A total life-cycle approach to systems and their analysis. This practical introduction to systems engineering and analysis provides the concepts, methodologies, models, and tools needed to understand and implement a total life-cycle approach to systems and their analysis. The authors focus first on the process of bringing systems into being-beginning with the

identification of a need and extending that need through requirements determination, functional analysis and allocation, design synthesis, evaluation, and validation, operation and support, phase-out, and disposal. Next, the authors discuss the improvement of systems currently in being, showing that by employing the iterative process of analysis, evaluation, feedback, and modification, most systems in existence can be improved in their affordability, effectiveness, and stakeholder satisfaction.
