1. Record Nr. UNINA9910132298203321 Autore Rainey Larry B **Titolo** Modeling and simulation support for system of systems engineering applications / / edited by Larry B. Rainey, Andreas Tolk; contributors, Larry B. Rainey [and forty-five others] Pubbl/distr/stampa Hoboken, New Jersey:,: Wiley,, 2015 ©2015 **ISBN** 1-118-50175-6 1-118-50172-1 Descrizione fisica 1 online resource (641 p.) Disciplina 620.001/13 Soggetti Systems engineering - Data processing **Engineering models** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references at the end of each chapters and Nota di bibliografia index. Nota di contenuto Title Page; Copyright Page; Contents; Foreword; List of Contributors; Notes on Contributors; List of Acronyms; Part I Overview and Introduction; Chapter 1 Overview and Introduction to Modeling and Simulation Support for System of Systems Engineering Applications; 1.1 MOTIVATION; 1.2 OBJECTIVE; 1.3 STRUCTURE OF THE HANDBOOK; REFERENCES: Chapter 2 The Role of Modeling and Simulation in System of Systems Development; 2.1 INTRODUCTION; 2.2 SoS AND CATEGORIES OF SYSTEM; 2.3 IMPORTANT SYSTEMS AND CATEGORIES; 2.4 M&S IN THE SoS CATEGORY; 2.5 ARCHITECTURE, ARCHITECTURE DESCRIPTION, AND DEVELOPMENT 2.6 SUMMARY AND CONCLUSIONSREFERENCES: Part II Theoretical and Methodological Considerations; Chapter 3 Composability; 3.1 INTRODUCTION; 3.2 MAIER'S ATTRIBUTES OF AN SoS; 3.3 CONCEPTUAL MODELING; 3.4 COMPOSABILITY, INTEROPERABILITY, AND INTEGRATABILITY: 3.5 THE LCIM: 3.6 CURRENT STANDARDS: 3.7 CURRENT RESEARCH; 3.8 CONCLUSION; REFERENCES; Chapter 4 An Approach for System of Systems Tradespace Exploration; 4.1

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## Sommario/riassunto

Features a comprehensive treatment on the use of modeling and simulation support for system of systems engineering as well as best practices in the industryModeling and Simulation Support for System of Systems Engineering Applications provides a comprehensive overview of the underlying theory, methods, and solutions in modeling and simulation support for system of systems engineering. Highlighting plentiful multidisciplinary applications of modeling and simulation, the book addresses the criteria and challenges found within the field. Beginning with a foundation of concepts, terms, and categor