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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	An Engineering Systems Introduction to Axiomatic Design -- Mathematical Exposition of the Design Axioms -- New developments to guide strategic product design and systematic innovation -- A Different Consideration on Information and Complexity in Axiomatic Design -- A Novel Approach for Axiomatic-Based Design for the Environment -- Application of Axiomatic Design to the Design of the Built Environment: a Literature Review -- Applying Axiomatic Design to Prefabricated Building Design in the Housing Industry: a Case Studies Analysis -- An Application of Quality Function Deployment and Axiomatic Design to the Conceptual Design of Temporary Housing -- Design and Implementation Approach for Distributed Manufacturing Networks

using Axiomatic Design -- Axiomatic Design of Production Systems for Performance Improvement: a Project Identification and Prioritization model -- Challenges in Designing and Implementing Large Systems (Overcoming Cost Over-Runs and Missed Project Schedules) -- Appendix A: Axioms, Corollaries and Theorems in Axiomatic Design.

Sommario/riassunto

This book provides a synthesis of recent developments in Axiomatic Design theory and its application in large complex systems. Introductory chapters provide concise tutorial materials for graduate students and new practitioners, presenting the fundamentals of Axiomatic Design and relating its key concepts to those of model-based systems engineering. A mathematical exposition of design axioms is also provided. The main body of the book, which represents a concentrated treatment of several applications, is divided into three parts covering work on: complex products; buildings; and manufacturing systems. The book shows how design work in these areas can benefit from the scientific and systematic underpinning provided by Axiomatic Design, and in so doing effectively combines the state of the art in design research with practice. All contributions were written by an international group of leading proponents of Axiomatic Design. The book concludes with a call to action motivating further research into the engineering design of large complex systems.