

1. Record Nr.	UNISALENTO991003235649707536
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Titolo	Modeling and problem solving techniques for engineers [e-book] / by László Horváth and Imre J. Rudas
Pubbl/distr/stampa	Burlington, Mass. : Elsevier Academic Press, 2004
ISBN	9780126022506 012602250X
Descrizione fisica	xvii, 330 p. : ill. ; 24 cm
Altri autori (Persone)	Rudas, I. J.
Disciplina	620.00420285
Soggetti	Computer-aided engineering Engineering design - Data processing Electronic books.
Lingua di pubblicazione	Inglese
Formato	Risorsa elettronica
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references (p. 319-325) and index
Nota di contenuto	1. The magic world of virtual engineering -- 2. Activities in virtual engineering -- 3. Computer representations of shapes -- 4. Representation of elementary shapes -- 5. Models of shape-centered products -- 6. Finite element and manufacturing process models -- 7. Creating curve and surface models in CAD/CAM systems -- 8. Construction and relating solid part models in CAD/CAM systems -- 9. Creating kinematic models in CAD/CAM systems
Sommario/riassunto	This book offers a comprehensive survey of computer methods for engineers that know the importance of the future applications of these techniques but can not understand them. Typically, design and production engineers can find books for specialists but they need one that helps them to understand the mystic world of advanced computer aided engineering activities. This book is intended to fill this gap. Mechanical engineers will find basic theory and the value of competitive computer-aided engineering methods in the proposed book. The book will be written in a style free of computer specialists' jargon. The topic of the book is computer methodology for engineers, including conceptual design, detailed design, styling, modeling, analysis, simulation, manufacturing planning, 3D graphic visualization. The aspect is of the engineer who is in dialog connection with computer

procedures and is working in a human-computer system where a group of engineers collaborates using an advanced concurrent engineering environment. The book will include chapters on: computing for engineering; computer representation; computing methods: creating computer representations; application of computer representations; engineering activities in the global computer environment; and opinions of some potentials. The audience for this book consists of engineers, who must be familiar with computer methods and should be able to apply them in their work, as well as students who are not involved in computer-related courses but need an understanding of the world of computer-aided engineering to solve engineering tasks. Potential readers may be any individuals who need to understand computer-aided engineering methods, especially engineering modeling. *Written by engineering professors who are also IT professionals, this book marries two points-of-view to provide a unique perspective *Covers the full spectrum of computer-aided engineering, from mathematics to graphics *Written purposefully in language that is IT jargon-free, so that engineers will not get lost in tangled acronyms

"Today, the majority of engineers in many varied fields must utilize CAD/CAM systems in their work, but due to the increasing number and sophistication of programs and methods available, no one engineer can possibly be an expert in all of them. This book will help, by offering a detailed and comprehensive survey of all the leading computer-aided engineering methods, effectively providing a map to this sometimes confusing world. It is especially written for design and production engineers practicing in the modern industrial environment, where design, analysis, manufacturing planning, production planning and computer controlled equipment programming are all governed by CAD/CAM systems. The authors, who are engineering professors as well as IT professionals, clearly explain concepts, approaches, principles, and practical methods in purposefully IT-jargon free language, so that engineers will not get lost in a tangle of acronyms. It provides basic theoretical background and examines the relative value of various competitive computer-aided engineering methods, so that engineers will feel confident in making design tool choices, without having to become specialists in the development issues surrounding each system"--P. [4] of cover.
