

Contents

Introduction to Engineering Informatics	1
Narges Sajadfar, Yanan Xie, Hongyi Liu and Y.-S. Ma	
A Review of Data Representation of Product and Process Models. . . .	31
Narges Sajadfar, Yanan Xie, Hongyi Liu and Y.-S. Ma	
An Example of Feature Modeling Application: Smart Design for Well-Drilling Systems	53
Rajiur S. M. Rahman and Y.-S. Ma	
Fundamental Concepts of Generic Features	89
S.-H. Tang, Gang Chen and Y.-S. Ma	
Unified Feature Paradigm	117
Zhengrong Cheng, S.-H. Tang, Gang Chen and Y.-S. Ma	
Features and Interoperability of Computer Aided Engineering Systems	143
Yanan Xie, Jikai Liu, Hongyi Liu and Y.-S. Ma	
Data Representation and Modeling for Process Planning	193
Chulho Chung and Qingjin Peng	
Computation of Offset Curves Using a Distance Function: Addressing a Key Challenge in Cutting Tool Path Generation	259
C. K. Au and Y.-S. Ma	
Feature Transformation from Configuration of Open-Loop Mechanisms into Linkages with a Case Study.	275
Abiy Wubneh, C. K. Au and Y.-S. Ma	

Feature-Based Mechanism Design 303
Abiy Wubneh and Y.-S. Ma

**A Smart Knowledge Capturing Method in Enhanced
Generative Design Cycles 353**
G. P. Gujarathi and Y.-S. Ma

Index 381

Semantic Modeling and Interoperability in Product and
Process Engineering

A Technology for Engineering Informatics

Ma, Y. (Ed.)

2013, XVIII, 389 p., Hardcover

ISBN: 978-1-4471-5072-5