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Nota di contenuto	Contents ; Series Editor's Preface (To Yoon-Bin and Joon-Hee) ; Volume Editor's Preface ; Chapter 1 Automatic Detection of Microcalcifications in Mammograms Using a Fuzzy Classifier ; 1.1 Introduction ; 1.2 Background Study ; 1.3 Object classification 1.4 Uncertainty in medical imaging and fuzzy set theory 1.5 Applications of fuzzy theory in image understanding ; 1.6 Fuzzy microcalcification detector ; 1.7 Overview of the fuzzy method ; 1.8 Fuzzy detection ; 1.9 Validation of the fuzzy microcalcification detector 1.10 Experimental results 1.11 Conclusions ; Chapter 2 Software Deployability Control System: Application of Choquet Integral and Rough Sets ; 2.1 Introduction ; 2.2 Basic Approach to Controlling Software Cost ; 2.3 Fuzzy Sets: Basic Concepts ; 2.4 Rough Sets: Basic Concepts 2.5 Petri Net Model of Cost Estimation Process 2.6 Example Software Cost Estimation ; 2.7

Concluding Remarks ; Chapter 3 Predictive Fuzzy
Model for Control of an Artificial Muscle
; 3.1 Introduction ; 3.2 APM Analytical Model and Control
Law synthesis ; 3.3 APM Predictive
Fuzzy Model
3.4 Computer Simulation 3.5 Conclusions
; References ; Chapter 4 Fuzzy Supervisory Control with
Fuzzy-PID Controller and its Application to Petroleum Plants
; 1.1 Introduction ; 1.2 Process Description and Control
Problems ; 1.3 Proposed Hierarchical
Control System
1.4 Control Result of Fuzzy-PID Controller with Supervisor in Actual
Plant

Sommario/riassunto

Soft computing has been presented not only with the theoretical developments but also with a large variety of realistic applications to consumer products and industrial systems. Application of soft computing has provided the opportunity to integrate human-like vagueness and real-life uncertainty into an otherwise hard computer program. This book highlights some of the recent developments in practical applications of soft computing in engineering problems. All the chapters have been sophisticatedly designed and revised by international experts to achieve wide but in-depth coverage.

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