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Titolo	Hybrid Soft Computing for Image Segmentation // edited by Siddhartha Bhattacharyya, Paramartha Dutta, Sourav De, Goran Klepac
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ISBN	3-319-47223-2
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XVI, 321 p. 162 illus., 87 illus. in color.)
Disciplina	006.3
Soggetti	Artificial intelligence Computational intelligence Optical data processing Artificial Intelligence Computational Intelligence Computer Imaging, Vision, Pattern Recognition and Graphics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Hybrid Soft Computing Techniques for Image Segmentation: Fundamentals and Applications -- Enhanced Rough-Fuzzy C-Means Algorithm for Image Segmentation -- Intuitionistic Fuzzy C-means Clustering Algorithm for Brain Image Segmentation -- Automatic Segmentation Approaches -- Modified Level Set Segmentation -- Fuzzy Deformable Models for 3D Segmentation of Brain Structures -- Rough Sets for Probabilistic Model Based Image Segmentation -- Segmentation of Cerebral Images. .
Sommario/riassunto	This book proposes soft computing techniques for segmenting real-life images in applications such as image processing, image mining, video surveillance, and intelligent transportation systems. The book suggests hybrids deriving from three main approaches: fuzzy systems, primarily used for handling real-life problems that involve uncertainty; artificial neural networks, usually applied for machine cognition, learning, and recognition; and evolutionary computation, mainly used for search, exploration, efficient exploitation of contextual information, and

optimization. The contributed chapters discuss both the strengths and the weaknesses of the approaches, and the book will be valuable for researchers and graduate students in the domains of image processing and computational intelligence.

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