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Disciplina	621.3670151
Soggetti	Computational intelligence Automatic control Artificial intelligence System theory Computational Intelligence Control and Systems Theory Artificial Intelligence Systems Theory, Control
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	New Approaches in Intelligent Image Analysis- Techniques, Methodologies and Applications -- New Approaches for Hierarchical Image Decomposition, based on IDP, SVD, PCA and KPCA -- Intelligent Digital Signal Processing and Feature Extraction Methods -- Multi-Dimensional Data Clustering and Visualization via Echo State Networks -- Unsupervised Clustering of Natural Images in Automatic Image Annotation Systems -- An Evolutionary Optimization Control System for Remote Sensing Image Processing -- Tissue Segmentation Methods using 2D Histogram Modification in a Sequence of MR Brain Images -- Multistage Approach for Simple Kidney Cysts Segmentation in CT Images -- Audio Visual Attention Models in Mobile Robots Navigation -- Local Adaptive Image Processing -- Learning Techniques for Intelligent Access Control -- Experimental Evaluation of Opportunity to

Sommario/riassunto

This book presents an Introduction and 11 independent chapters, which are devoted to various new approaches of intelligent image processing and analysis. The book also presents new methods, algorithms and applied systems for intelligent image processing, on the following basic topics: Methods for Hierarchical Image Decomposition; Intelligent Digital Signal Processing and Feature Extraction; Data Clustering and Visualization via Echo State Networks; Clustering of Natural Images in Automatic Image Annotation Systems; Control System for Remote Sensing Image Processing; Tissue Segmentation of MR Brain Images Sequence; Kidney Cysts Segmentation in CT Images; Audio Visual Attention Models in Mobile Robots Navigation; Local Adaptive Image Processing; Learning Techniques for Intelligent Access Control; Resolution Improvement in Acoustic Maps. Each chapter is self-contained with its own references. Some of the chapters are devoted to the theoretical aspects while the others are presenting the practical aspects and the analysis of the modeling of the developed algorithms in different application areas.
