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Altri autori (Persone)	SiarryPatrick
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Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Optimization in Signal and Image Processing; Table of Contents; Introduction; Chapter 1. Modeling and Optimization in Image Analysis; 1.1. Modeling at the source of image analysis and synthesis; 1.2. From image synthesis to analysis; 1.3. Scene geometric modeling and image synthesis; 1.4. Direct model inversion and the Hough transform; 1.4.1. The deterministic Hough transform; 1.4.2. Stochastic exploration of parameters: evolutionary Hough; 1.4.3. Examples of generalization; 1.5. Optimization and physical modeling; 1.5.1. Photometric modeling; 1.5.2. Motion modeling; 1.6. Conclusion 1.7. Acknowledgements 1.8. Bibliography; Chapter 2. Artificial Evolution and the Parisian Approach. Applications in the Processing of Signals and Images; 2.1. Introduction; 2.2. The Parisian approach for evolutionary algorithms; 2.3. Applying the Parisian approach to inverse IFS problems; 2.3.1. Choosing individuals for the evaluation process; 2.3.2. Retribution of individuals; 2.4. Results obtained on the inverse

problems of IFS; 2.5. Conclusion on the usage of the Parisian approach for inverse IFS problems; 2.6. Collective representation: the Parisian approach and the Fly algorithm

2.6.1. The principles 2.6.2. Results on real images; 2.6.3. Application to robotics: fly-based robot planning; 2.6.4. Sensor fusion; 2.6.5. Artificial evolution and real time; 2.6.6. Conclusion about the fly algorithm; 2.7. Conclusion; 2.8. Acknowledgements; 2.9. Bibliography; Chapter 3. Wavelets and Fractals for Signal and Image Analysis; 3.1. Introduction; 3.2. Some general points on fractals; 3.2.1. Fractals and paradox; 3.2.2. Fractal sets and self-similarity; 3.2.3. Fractal dimension; 3.3. Multifractal analysis of signals; 3.3.1. Regularity; 3.3.2. Multifractal spectrum

3.4. Distribution of singularities based on wavelets 3.4.1. Qualitative approach; 3.4.2. A rough guide to the world of wavelet; 3.4.3. Wavelet Transform Modulus Maxima (WTMM) method; 3.4.4. Spectrum of singularities and wavelets; 3.4.5. WTMM and some didactic signals; 3.5. Experiments; 3.5.1. Fractal analysis of structures in images: applications in microbiology; 3.5.2. Using WTMM for the classification of textures - application in the field of medical imagery; 3.6. Conclusion; 3.7. Bibliography; Chapter 4. Information Criteria: Examples of Applications in Signal and Image Processing

4.1. Introduction and context 4.2. Overview of the different criteria; 4.3. The case of auto-regressive (AR) models; 4.3.1. Origin, written form and performance of different criteria on simulated examples; 4.3.2. AR and the segmentation of images: a first approach; 4.3.3. Extension to 2D AR and application to the modeling of textures; 4.3.4. AR and the segmentation of images: second approach using 2D AR; 4.4. Applying the process to unsupervised clustering; 4.5. Law approximation with the help of histograms; 4.5.1. Theoretical aspects; 4.5.2. Two applications used for encoding images

4.6. Other applications

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## Sommario/riassunto

This book describes the optimization methods most commonly encountered in signal and image processing: artificial evolution and Parisian approach; wavelets and fractals; information criteria; training and quadratic programming; Bayesian formalism; probabilistic modeling; Markovian approach; hidden Markov models; and metaheuristics (genetic algorithms, ant colony algorithms, cross-entropy, particle swarm optimization, estimation of distribution algorithms, and artificial immune systems).

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2. Record Nr.	UNINA9910960698703321
Autore	West Nigel
Titolo	Historical dictionary of signals intelligence / / Nigel West
Pubbl/distr/stampa	Lanham, : Scarecrow Press, 2012 New York : , : Bloomsbury Publishing (US), , 2012
ISBN	979-82-16-41644-9 1-283-58405-0 9786613896506 0-8108-7391-5
Edizione	[1st ed.]
Descrizione fisica	1 online resource (371 p.)
Collana	Historical Dictionaries of Intelligence and CounterIntelligence
Disciplina	327.12
Soggetti	Military HISTORY Reference Dictionaries POLITICAL SCIENCE Electronic surveillance Other Electronic surveillance - History Dictionaries. History
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Contents; Acknowledgments; Editor's Foreword; Acronyms and Abbreviations; Chronology; Introduction; A; B; C; D; E; F; G; H; I; J; K; L; M; N; O; P; Q; R; S; T; U; V; W; X; Y; Z; Appendix A. VENONA Glossary; Appendix B. Agreement between British Government Code and Cipher School and U.S. War Department in regard to Certain "Special Intelligence"; Appendix C. British-U.S. Communication Intelligence Agreement; Bibliography; Index; About the Author
Sommario/riassunto	The Historical Dictionary of Signals Intelligence covers the history of Signals Intelligence (SIGINT) through a chronology, an introductory

essay, an appendix, and an extensive bibliography. The dictionary section has over 300 cross-referenced entries on key personnel, SIGINT technology, intelligence operations, and agencies, as well as the tradecraft and jargon. This book is an excellent access point for students, researchers, and anyone wanting to know more about Signals Intelligence.

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