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Simulation Example; 4.11 Networks with Weight Sharing; 4.12 Generalized Linear Classifiers; 4.13 Capacity of the l-Dimensional Space in Linear Dichotomies; 4.14 Polynomial Classifiers; 4.15 Radial Basis Function Networks; 4.16 Universal Approximators; 4.17 Probabilistic Neural Networks; 4.18 Support Vector Machines:The Nonlinear Case; 4.19 Beyond the SVM Paradigm; 4.20 Decision Trees; 4.21 Combining Classifiers; 4.22 The Boosting Approach to Combine Classifiers; 4.23 The Class Imbalance Problem; 4.24 Discussion; 4.25 Problems
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6.2 Basis Vectors and Images 6.3 The Karhunen-Loeve Transform; 6.4 The Singular Value Decomposition; 6.5 Independent Component Analysis; 6.6 Non-negative Matrix Factorization; 6.7 Nonlinear Dimensionality Reduction; 6.8 The Discrete Fourier Transform (DFT); 6.9 The Discrete Cosine and Sine Transforms; 6.10 The Hadamard Transform; 6.11 The Haar Transform; 6.12 The Haar Expansion Revisited; 6.13 Discrete Time Wavelet Transform (DTWT); 6.14 The Multi-resolution Interpretation; 6.15 Wavelet Packets; 6.16 A Look at Two-Dimensional Generalizations; 6.17 Applications; 6.18 Problems; References
Chapter 7

Sommario/riassunto

This book considers classical and current theory and practice, of supervised, unsupervised and semi-supervised pattern recognition, to build a complete background for professionals and students of engineering. The authors, leading experts in the field of pattern recognition, have provided an up-to-date, self-contained volume encapsulating this wide spectrum of information. The very latest methods are incorporated in this edition: semi-supervised learning, combining clustering algorithms, and relevance feedback. · Thoroughly developed to include many more worked examples to give grea