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Nota di contenuto	Bagging and Boosting -- Bagging and the Random Subspace Method for Redundant Feature Spaces -- Performance Degradation in Boosting -- A Generalized Class of Boosting Algorithms Based on Recursive Decoding Models -- Tuning Cost-Sensitive Boosting and Its Application to Melanoma Diagnosis -- Learning Classification RBF Networks by Boosting -- MCS Design Methodology -- Data Complexity Analysis for Classifier Combination -- Genetic Programming for Improved Receiver Operating Characteristics -- Methods for Designing Multiple Classifier Systems -- Decision-Level Fusion in Fingerprint Verification -- Genetic Algorithms for Multi-classifier System Configuration: A Case Study in Character Recognition -- Combined Classification of Handwritten Digits

Using the 'Virtual Test Sample Method' -- Averaging Weak Classifiers -- Mixing a Symbolic and a Subsymbolic Expert to Improve Carcinogenicity Prediction of Aromatic Compounds -- Ensemble Classifiers -- Multiple Classifier Systems Based on Interpretable Linear Classifiers -- Least Squares and Estimation Measures via Error Correcting Output Code -- Dependence among Codeword Bits Errors in ECOC Learning Machines: An Experimental Analysis -- Information Analysis of Multiple Classifier Fusion? -- Limiting the Number of Trees in Random Forests -- Learning-Data Selection Mechanism through Neural Networks Ensemble -- A Multi-SVM Classification System -- Automatic Classification of Clustered Microcalcifications by a Multiple Classifier System -- Feature Spaces for MCS -- Feature Weighted Ensemble Classifiers -- A Modified Decision Scheme -- Feature Subsets for Classifier Combination: An Enumerative Experiment -- Input Decimation Ensembles: Decorrelation through Dimensionality Reduction -- Classifier Combination as a Tomographic Process -- MCS in Remote Sensing -- A Robust Multiple Classifier System for a Partially Unsupervised Updating of Land-Cover Maps -- Combining Supervised Remote Sensing Image Classifiers Based on Individual Class Performances -- Boosting, Bagging, and Consensus Based Classification of Multisource Remote Sensing Data -- Solar Wind Data Analysis Using Self-Organizing Hierarchical Neural Network Classifiers -- One Class MCS and Clustering -- Combining One-Class Classifiers -- Finding Consistent Clusters in Data Partitions -- A Self-Organising Approach to Multiple Classifier Fusion -- Combination Strategies -- Error Rejection in Linearly Combined Multiple Classifiers -- Relationship of Sum and Vote Fusion Strategies -- Complexity of Data Subsets Generated by the Random Subspace Method: An Experimental Investigation -- On Combining Dissimilarity Representations -- Application of Multiple Classifier Techniques to Subband Speaker Identification with an HMM/ANN System -- Classification of Time Series Utilizing Temporal and Decision Fusion -- Use of Positional Information in Sequence Alignment for Multiple Classifier Combination -- Application of the Evolutionary Algorithms for Classifier Selection in Multiple Classifier Systems with Majority Voting -- Tree-Structured Support Vector Machines for Multi-class Pattern Recognition -- On the Combination of Different Template Matching Strategies for Fast Face Detection -- Improving Product by Moderating k-NN Classifiers -- Automatic Model Selection in a Hybrid Perceptron/Radial Network.

Sommario/riassunto

Driven by the requirements of a large number of practical and commercially - portant applications, the last decade has witnessed considerable advances in p- tern recognition. Better understanding of the design issues and new paradigms, such as the Support Vector Machine, have contributed to the development of - proved methods of pattern classi cation. However, while any performance gains are welcome, and often extremely signi cant from the practical point of view, it is increasingly more challenging to reach the point of perfection as de ned by the theoretical optimality of decision making in a given decision framework. The asymptoticity of gains that can be made for a single classi er is a re?- tion of the fact that any particular design, regardless of how good it is, simply provides just one estimate of the optimal decision rule. This observation has motivated the recent interest in Multiple Classi er Systems , which aim to make use of several designs jointly to obtain a better estimate of the optimal decision boundary and thus improve the system performance. This volume contains the proceedings of the international workshop on Multiple Classi er Systems held at Robinson College, Cambridge, United Kingdom (July 2{4, 2001), which was organized to provide a forum for

researchers in this subject area to exchange views and report their latest results.
