1. Record Nr. UNISA996465938903316

| | |
|---|---|
| Titolo | Artificial Neural Networks - ICANN 2010 [[electronic resource] ] : 20th International Conference, Thessaloniki, Greece, September 15-18, 2010, Proceedings, Part III / / edited by Konstantinos Diamantaras, Wlodek Duch, Lazaros S. Iliadis |
| Pubbl/distr/stampa | Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2010 |
| ISBN | 1-280-38910-9<br>9786613567024<br>3-642-15825-0 |
| Edizione | [1st ed. 2010.] |
| Descrizione fisica | 1 online resource (XVII, 575 p. 213 illus.) |
| Collana | Theoretical Computer Science and General Issues, , 2512-2029 ; ; 6354 |
| Disciplina | 006.3 |
| Soggetti | Artificial intelligence<br>Computer science<br>Application software<br>Algorithms<br>Pattern recognition systems<br>Database management<br>Artificial Intelligence<br>Theory of Computation<br>Computer and Information Systems Applications<br>Automated Pattern Recognition<br>Database Management |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | International conference proceedings. |
| Nota di bibliografia | Includes bibliographical references and author index. |
| Nota di contenuto | Classification – Pattern Recognition -- Deep Bottleneck Classifiers in Supervised Dimension Reduction -- Local Modeling Classifier for Microarray Gene-Expression Data -- Learning of Lateral Connections for Representational Invariant Recognition -- Computational Properties of Probabilistic Neural Networks -- Local Minima of a Quadratic Binary Functional with a Quasi-Hebbian Connection Matrix -- A Learned Saliency Predictor for Dynamic Natural Scenes -- Learning a |

Combination of Heterogeneous Dissimilarities from Incomplete Knowledge -- A Bilinear Model for Consistent Topographic Representations -- Accelerating Large-Scale Convolutional Neural Networks with Parallel Graphics Multiprocessors -- Evaluation of Pooling Operations in Convolutional Architectures for Object Recognition -- Visual Shape Recognition Neural Network Using BESOM Model -- Comparing Feature Extraction Techniques and Classifiers in the Handwritten Letters Classification Problem -- The Parameter Optimization of the Pulse Coupled Neural Network for the Pattern Recognition -- The Use of Feed Forward Neural Network for Recognizing Characters of Dactyl Alphabet -- Detecting DDoS Attack towards DNS Server Using a Neural Network Classifier -- Classification Based on Multiple-Resolution Data View -- Identification of the Head-and-Shoulders Technical Analysis Pattern with Neural Networks -- Analyzing Classification Methods in Multi-label Tasks -- Learning Bimanual Coordination Patterns for Rhythmic Movements -- Classification of Voice Aging Using Parameters Extracted from the Glottal Signal -- Learning Algorithms and Systems -- TopoART: A Topology Learning Hierarchical ART Network -- Policy Gradients for Cryptanalysis -- Linear Projection Method Based on Information Theoretic Learning -- Continuous Visual Codebooks with a Limited Branching Tree Growing Neural Gas -- An Efficient Collaborative Recommender System Based on k-Separability -- Empirical Analysis of the Divergence of Gibbs Sampling Based Learning Algorithms for Restricted Boltzmann Machines -- Multitask Semi–supervised Learning with Constraints and Constraint Exceptions -- Tumble Tree – Reducing Complexity of the Growing Cells Approach -- Sentence Extraction by Graph Neural Networks -- Autonomous Generation of Internal Representations for Associative Learning -- Improving Accuracy of LVQ Algorithm by Instance Weighting -- Multifactor Expectation Maximization for Factor Graphs -- Weighted Learning Vector Quantization to Cost-Sensitive Learning -- Solution Space of Perceptron -- Natural Language Processing Neural Network for Recall and Inference -- Nominally Conditioned Linear Regression -- A Novel Continuous Dual Mode Neural Network in Stereo-Matching Process -- Learning Invariant Visual Shape Representations from Physics -- Algorithms Creating Algorithms -- Assessing Statistical Reliability of LiNGAM via Multiscale Bootstrap -- Learning with Convex Constraints -- Theoretical Analysis of Cross-Validation(CV)-EM Algorithm -- Application of BSP-Based Computational Cost Model to Predict Parallelization Efficiency of MLP Training Algorithm -- Dynamic Shape Learning and Forgetting -- On-Line Ensemble-Teacher Learning through a Perceptron Rule with a Margin -- Model of the Hippocampal Learning of Spatio-temporal Sequences -- Adding Nonlinear System Dynamics to Levenberg-Marquardt Algorithm for Neural Network Control -- Computational Intelligence -- Some Comparisons of Model Complexity in Linear and Neural-Network Approximation -- A Funny Proverb Generation System Based on Sukashi -- Supervised Neural Fuzzy Schemes in Video Transmission over Bluetooth -- A Graph Based Framework for Clustering and Characterization of SOM -- Clustering Using Elements of Information Theory -- A Path Planning Method for Human Tracking Agents Using Variable-Term Prediction -- Three-Layer Feedforward Structures Smoothly Approximating Polynomial Functions -- Neural Networks Training for Weapon Selection in First-Person Shooter Games -- Efficient Confidence Bounds for RBF Networks for Sparse and High Dimensional Data -- Large Scale Problem Solving with Neural Networks: The Netflix Prize Case -- A Cooperative and Penalized Competitive Learning Approach to Gaussian Mixture

Clustering -- A Inference Mechanism for Polymer Processing Using Rough-Neuro Fuzzy Network -- IEM3 Workshop -- Data Mining Methods for Quality Assurance in an Environmental Monitoring Network -- Predicting QoL Parameters for the Atmospheric Environment in Athens, Greece -- Investigating Pollen Data with the Aid of Fuzzy Methods -- A New Neural Model for Traffic Simulation -- System Architecture for a Smart University Building -- Monitoring and Assessment of Environmental Impact by Persistent Organic Pollutants -- A Feature Selection Method for Air Quality Forecasting -- CVA Workshop -- How Do Attention, Intention, and Consciousness Interact? -- Consciousness versus Attention -- On the Fringe of Awareness: The Glance-Look Model of Attention-Emotion Interactions -- No Stopping and No Slowing: Removing Visual Attention with No Effect on Reversals of Phenomenal Appearance -- Modelling Neurotic Psychopathology: Memory, Attention and Symbolization -- SOINN Workshop -- How to Use the SOINN Software: User's Guide (Version 1.0) -- Unguided Robot Navigation Using Continuous Action Space -- Self-Organizing Incremental Neural Network and Its Application -- Machine Learning Approaches for Time-Series Data Based on Self-Organizing Incremental Neural Network -- Online Knowledge Acquisition and General Problem Solving in a Real World by Humanoid Robots -- Incremental Learning Using Self-Organizing Neural Grove -- Fast and Incremental Attribute Transferring and Classifying System for Detecting Unseen Object Classes.

Sommario/riassunto

th This volume is part of the three-volume proceedings of the 20 International Conference on Arti?cial Neural Networks (ICANN 2010) that was held in Th- saloniki, Greece during September 15–18, 2010. ICANN is an annual meeting sponsored by the European Neural Network Society (ENNS) in cooperation with the International Neural Network So- ety (INNS) and the Japanese Neural Network Society (JNNS). This series of conferences has been held annually since 1991 in Europe, covering the ?eld of neurocomputing, learning systems and other related areas. As in the past 19 events, ICANN 2010 provided a distinguished, lively and interdisciplinary discussion forum for researches and scientists from around the globe. Ito? eredagoodchanceto discussthe latestadvancesofresearchandalso all the developments and applications in the area of Arti?cial Neural Networks (ANNs). ANNs provide an information processing structure inspired by biolo- cal nervous systems and they consist of a large number of highly interconnected processing elements (neurons). Each neuron is a simple processor with a limited computing capacity typically restricted to a rule for combining input signals (utilizing an activation function) in order to calculate the output one. Output signalsmaybesenttootherunitsalongconnectionsknownasweightsthatexc ite or inhibit the signal being communicated. ANNs have the ability "to learn" by example (a large volume of cases) through several iterations without requiring a priori ?xed knowledge of the relationships between process parameters.