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Titolo	Artificial Neural Networks and Machine Learning -- ICANN 2013 : 23rd International Conference on Artificial Neural Networks, Sofia, Bulgaria, September 10-13, 2013, Proceedings // edited by Valeri Mladenov, Petia Koprinkova-Hristova, Günther Palm, Alessandro Villa, Bruno Apolloni, Nikola K. Kasabov
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Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 8131
Disciplina	006.32
Soggetti	Artificial intelligence Computer science Algorithms Pattern recognition systems Application software Computer vision Artificial Intelligence Theory of Computation Automated Pattern Recognition Computer and Information Systems Applications Computer Vision
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Formato	Materiale a stampa
Livello bibliografico	Monografia
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Nota di contenuto	Neural Network Theory and Models -- Hessian Corrected Input Noise Models -- Model-Based Clustering of Temporal Data -- Fast Approximation Method for Gaussian Process Regression Using Hash Function for Non-uniformly Distributed Data -- An Analytical Approach to Single Node Delay-Coupled Reservoir Computing -- Applying General-Purpose Data Reduction Techniques for Fast Time Classification -- Two-Layer Vector Perceptron -- Local Detection of Communities by Neural-Network Dynamics -- The Super-Turing Computational Power of Interactive Evolving Recurrent Neural Networks

-- Group Fused Lasso -- Exponential Synchronization of a Class of RNNs with Discrete and Distributed Delays -- Foundations of Online Backpropagation -- GNMF with Newton-Based Methods -- Improving the Associative Rule Chaining Architecture -- Machine Learning and Learning Algorithms -- A Two-Stage Pretraining Algorithm for Deep Boltzmann Machines -- A Low-Energy Implementation of Finite Automata by Optimal-Size Neural Nets -- A Distributed Learning Algorithm Based on Frontier Vector Quantization and Information Theory -- Efficient Baseline-Free Sampling in Parameter Exploring Policy Gradients: Super Symmetric PGPE -- Direct Method for Training Feed-Forward Neural Networks Using Batch Extended Kalman Filter for Multi-Step-Ahead Predictions -- Learning with Hard Constraints -- Bidirectional Activation-based Neural Network Learning Algorithm -- A Neural Network Model for Online Multi-Task Multi-Label Pattern Recognition -- Novel Feature Selection and Kernel-Based Value Approximation Method for Reinforcement Learning -- Learning of Lateral Interactions for Perceptual Grouping Employing Information Gain -- On-Line Laplacian One-Class Support Vector Machines -- OSA: One-Class Recursive SVM Algorithm with Negative Sample for Fault Detection.-Brain-Machine Interaction and Bio-inspired Systems EEG Dataset Reduction and Classification Using Wave Atom Transform -- Embodied Language Understanding with a Multiple Timescale Recurrent Neural Network -- Unsupervised Online Calibration of a c-VEP Brain-Computer Interface (BCI) -- A Biologically Inspired Model for the Detection of External and Internal Head Motions -- Cortically Inspired Sensor Fusion Network for Mobile Robot Heading Estimation -- Learning Sensorimotor Transformations with Dynamic Neural Fields -- Cognitive Sciences and Neuroscience -- Learning Temporally Precise Spiking Patterns through Reward Modulated Spike-Timing-Dependent Plasticity -- Memory Trace in Spiking Neural Networks -- Attention-Gated Reinforcement Learning in Neural Networks—A Unified View -- Dynamic Memory for Robot Control Using Delay-Based Coincidence Detection Neurones -- Robust Principal Component Analysis for Brain Imaging -- Phase Control of Coupled Neuron Oscillators -- Dendritic Computations in a Rall Model with Strong Distal Stimulation -- Modeling Action Verb Semantics Using Motion Tracking -- Evolution of Dendritic Morphologies Using Deterministic and Genotype to Phenotype Mapping -- Sparseness Controls the Receptive Field Characteristics of V4 Neurons: Generation of Curvature Selectivity in V4 -- Pattern Recognition and Classification -- Handwritten Digit Recognition with Pattern Transformations and Neural Network Averaging -- Echo State Networks in Dynamic Data Clustering -- Self-Organization in Parallel Coordinates -- A General Image Representation Scheme and Its Improvement for Image Analysis -- Learning Features for Activity Recognition with Shift-Invariant Sparse Coding -- Hearing Aid Classification Based on Audiology Data -- BLSTM-RNN Based 3D Gesture Classification -- Feature Selection for Neural Network-Based Interval Forecasting of Electricity Demand Data -- A Combination of Hand-Crafted and Hierarchical High-Level Learnt Feature Extraction for Music Genre Classification -- Exploration of Loneliness Questionnaires Using the Self-Organising Map -- An Effective Dynamic Gesture Recognition System Based on the Feature Vector Reduction for SURF and LCS -- Feature Weighting by Maximum Distance Minimization -- Training Computationally Efficient Smartphone-Based Human Activity Recognition Models -- A Novel Procedure for Training L1-L2 Support Vector Machine Classifiers -- Online Classification of Eye Tracking Data for Automated Analysis of Traffic Hazard Perception -- Neural Network Applications in Control and Robotics Time-Series Forecasting of Indoor

Temperature Using Pre-trained Deep Neural Networks -- Recurrent Fuzzy-Neural Network with Fast Learning Algorithm for Predictive Control -- Real-Time Interface Board for Closed-Loop Robotic Tasks on the SpiNNaker Neural Computing System -- A Software Framework for Cognition, Embodiment, Dynamics, and Autonomy in Robotics: cedar -- Adaptive Critic Neural Network Solution of Optimal Control Problems Discrete Time Delays -- Emotion Generation System Considering Complex Emotion Based on MaC Model with Neural Networks -- Neuro-Optimal Controller for Robot Manipulators -- Learning to Walk Using a Recurrent Neural Network with Time Delay -- The Imbalance Network and Incremental Evolution for Mobile Robot Nervous System Design -- Balancing of a Simulated Inverted Pendulum Using the NeuraBase Network Model -- Coordinated Rule Acquisition of Decision Making on Supply Chain by Exploitation-Oriented Reinforcement Learning -Beer Game as an Example.-Other Applications of Neural Networks -- Using Exponential Kernel for Word Sense Disambiguation -- Independent Component Analysis Filtration for Value at Risk Modelling -- Wind Power Resource Estimation with Deep Neural Networks -- Wavelet Neural Networks for Electricity Load Forecasting -- Dealing with Border Distortion and Shift Invariance -- Interactive Two-Level WEBSOM for Organizational Exploration -- Optimal Operation of Electric Power Production System without Transmission Losses Using Artificial Neural Networks Based on Augmented Lagrange Multiplier Method -- An Echo State Network with Working Memories for Probabilistic Language Modeling -- Using the Analytic Feature Framework for the Detection of Occluded Objects -- Boltzmann Machines for Image Denoising -- Comparison on Late Fusion Methods of Low Level Features for Content Based Image Retrieval -- Vehicle Plate Recognition Using Improved Neocognitron Neural Network.

Sommario/riassunto

The book constitutes the proceedings of the 23rd International Conference on Artificial Neural Networks, ICANN 2013, held in Sofia, Bulgaria, in September 2013. The 78 papers included in the proceedings were carefully reviewed and selected from 128 submissions. The focus of the papers is on following topics: neurofinance graphical network models, brain machine interfaces, evolutionary neural networks, neurodynamics, complex systems, neuroinformatics, neuroengineering, hybrid systems, computational biology, neural hardware, bioinspired embedded systems, and collective intelligence.
