Record Nr. UNINA9910484392003321 Artificial Neural Networks in Pattern Recognition: 7th IAPR TC3 **Titolo** Workshop, ANNPR 2016, Ulm, Germany, September 28-30, 2016. Proceedings / / edited by Friedhelm Schwenker, Hazem M. Abbas, Neamat El Gayar, Edmondo Trentin Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2016 **ISBN** 3-319-46182-6 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (XI, 335 p. 107 illus.) Collana Lecture Notes in Artificial Intelligence, , 2945-9141; ; 9896 Disciplina 006.32 Soggetti Artificial intelligence Pattern recognition systems Data mining Computer vision User interfaces (Computer systems) Human-computer interaction Computer science Artificial Intelligence **Automated Pattern Recognition** Data Mining and Knowledge Discovery Computer Vision User Interfaces and Human Computer Interaction Theory of Computation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Nota di contenuto Learning sequential data with the help of linear systems -- A spiking neural network for personalised modelling of Electrogastogrophy (EGG) -- Improving generalization abilities of maximal average margin classifiers -- Finding small sets of random Fourier features for shiftinvariant kernel approximation -- Incremental construction of low-

dimensional data representations -- Soft-constrained nonparametric density estimation with artificial neural networks -- Density based

clustering via dominant sets -- Co-training with credal models --Interpretable classifiers in precision medicine: feature selection and multi-class categorization -- On the evaluation of tensor-based representations for optimum-pathforest classification -- On the harmony search using quaternions -- Learning parameters in deep belief networks through firefly algorithm -- Towards effective classification of imbalanced data with convolutional neural networks --On CPU performance optimization of restricted Boltzmann machine and convolutional RBM -- Comparing incremental learning strategies for convolutional neural networks -- Approximation of graph edit distance by means of a utility matrix -- Time series classification in reservoirand model-space: a comparison -- Objectness scoring and detection proposals in forward-Looking sonar images with convolutional neural networks -- Background categorization for automatic animal detection in aerial videos using neural networks -- Predictive segmentation using multichannel neural networks in Arabic OCR system -- Quad-tree based image segmentation and feature extraction to recognize online handwritten Bangla characters -- A hybrid recurrent neural network/dynamic probabilistic graphical model predictor of the disulfide bonding state of cysteines from the primary structure of proteins -- Using radial basis function neural networks for continuous anddiscrete pain estimation from bio-physiological signals -- Active learning for speech event detection in HCI -- Emotion recognition in speech with deep learning architectures -- On gestures and postural behavior as a modality in ensemble methods -- Machine learning driven heart rate detection with camera photoplethysmography in time domain. .

Sommario/riassunto

This book constitutes the refereed proceedings of the 7th IAPR TC3 International Workshop on Artificial Neural Networks in Pattern Recognition, ANNPR 2016, held in Ulm, Germany, in September 2016. The 25 revised full papers presented together with 2 invited papers were carefully reviewed and selected from 32 submissions for inclusion in this volume. The workshop will act as a major forum for international researchers and practitioners working in all areas of neural networkand machine learning-based pattern recognition to present and discuss the latest research, results, and ideas in these areas.