1. Record Nr. UNISA996465540203316

Titolo	Bioinspired Applications in Artificial and Natural Computation [[electronic resource]] : Third International Work-Conference on the Interplay Between Natural and Artificial Computation, IWINAC 2009, Santiago de Compostela, Spain, June 22-26, 2009, Proceedings, Part II / / edited by Jose Mira, José M. Ferrández, Jose-Ramon Alvarez Sanchez, Felix Paz, Javier Toledo
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2009
ISBN	1-280-38298-8 9786613560896 3-642-02267-7
Edizione	[1st ed. 2009.]
Descrizione fisica	1 online resource (XXI, 532 p.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 5602
Disciplina	004.0151
Soggetti	Computer science Algorithms Artificial intelligence Computer vision Pattern recognition systems Bioinformatics Theory of Computation Artificial Intelligence Computer Vision Automated Pattern Recognition Computational and Systems Biology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Measurements over the Aquiles Tendon through Ecographic Images Processing -- A New Approach in Metal Artifact Reduction for CT 3D Reconstruction -- Genetic Approaches for the Automatic Division of Topological Active Volumes -- Object Discrimination by Infrared Image Processing -- Validation of Fuzzy Connectedness Segmentation for Jaw

Tissues -- Breast Cancer Classification Applying Artificial Metaplasticity -- Ontology Based Approach to the Detection of Domestics Problems for Independent Senior People -- A Wireless Sensor Network for Assisted Living at Home of Elderly People -- An Ambient Assisted Living System for Telemedicine with Detection of Symptoms -- Applying Context-Aware Computing in Dependent Environments -- A Smart Solution for Elders in Ambient Assisted Living -- Convergence of Emergent Technologies for the Digital Home -- Results of an Adaboost Approach on Alzheimer's Disease Detection on MRI -- Analysis of Brain SPECT Images for the Diagnosis of Alzheimer Disease Using First and Second Order Moments -- Neurobiological Significance of Automatic Segmentation: Application to the Early Diagnosis of Alzheimer's Disease -- Support Vector Machines and Neural Networks for the Alzheimer's Disease Diagnosis Using PCA -- Functional Brain Image Classification Techniques for Early Alzheimer Disease Diagnosis -- Quality Checking of Medical Guidelines Using Interval Temporal Logics: A Case-Study -- Classification of SPECT Images Using Clustering Techniques Revisited -- Detection of Microcalcifications Using Coordinate Logic Filters and Artificial Neural Networks -- Rule Evolving System for Knee Lesion Prognosis from Medical Isokinetic Curves -- Denoising of Radiotherapy Portal Images Using Wavelets -- A Block-Based Human Model for Visual Surveillance -- Image Equilibrium: A Global Image Property for Human-Centered Image Analysis -- Vision-Based Text Segmentation System for Generic Display Units -- Blind Navigation along a Sinuous Path by Means of the See ColOr Interface -- Using Reconfigurable Supercomputers and C-to-Hardware Synthesis for CNN Emulation -- Access Control to Security Areas Based on Facial Classification -- Comparing Feature Point Tracking with Dense Flow Tracking for Facial Expression Recognition -- A Memory-Based Particle Filter for Visual Tracking through Occlusions -- Classification of Welding Defects in Radiographic Images Using an ANN with Modified Performance Function -- Texture Classification of the Entire Brodatz Database through an Orientational-Invariant Neural Architecture -- Eye-Hand Coordination for Reaching in Dorsal Stream Area V6A: Computational Lessons -- Toward an Integrated Visuomotor Representation of the Peripersonal Space -- Evidence for Peak-Shaped Gaze Fields in Area V6A: Implications for Sensorimotor Transformations in Reaching Tasks -- Segmenting Humans from Mobile Thermal Infrared Imagery -- My Sparring Partner Is a Humanoid Robot -- Brain-Robot Interface for Controlling a Remote Robot Arm -- Learning to Coordinate Multi-robot Competitive Systems by Stimuli Adaptation -- A Behavior Based Architecture with Auction-Based Task Assignment for Multi-robot Industrial Applications -- On the Control of a Multi-robot System for the Manipulation of an Elastic Hose -- An Improved Evolutionary Approach for Egomotion Estimation with a 3D TOF Camera -- A Frame for an Urban Traffic Control Architecture -- Partial Center of Area Method Used for Reactive Autonomous Robot Navigation -- Mathematical Foundations of the Center of Area Method for Robot Navigation -- Determining Sound Source Orientation from Source Directivity and Multi-microphone Recordings -- A Braitenberg Lizard: Continuous Phonotaxis with a Lizard Ear Model -- A New Metric for Supervised dFasArt Based on Size-Dependent Scatter Matrices That Enhances Maneuver Prediction in Road Vehicles -- A Strategy for Evolutionary Spanning Tree Construction within Constrained Graphs with Application to Electrical Networks -- An Evolutionary Approach for Correcting Random Amplified Polymorphism DNA Images -- A Method to Minimize Distributed PSO Algorithm Execution Time in Grid Computer Environment -- Assessment of a Speaker Recognition System

Based on an Auditory Model and Neural Nets -- CIE-9-MC Code Classification with knn and SVM -- Time Estimation in Injection Molding Production for Automotive Industry Based on SVR and RBF -- Performance of High School Students in Learning Math: A Neural Network Approach.

Sommario/riassunto

The two-volume set LNCS 5601 and LNCS 5602 constitutes the refereed proceedings of the Third International Work-Conference on the Interplay between Natural and Artificial Computation, IWINAC 2009, held in Santiago de Compostela, Spain, in June 2009. The 108 revised papers presented are thematically divided into two volumes. The first volume includes papers relating the most recent collaborations with Professor Mira and contributions mainly related with theoretical, conceptual and methodological aspects linking AI and knowledge engineering with neurophysiology, clinics and cognition. The second volume contains all the contributions connected with biologically inspired methods and techniques for solving AI and knowledge engineering problems in different application domains.