

Table of Contents

Using Tags to Improve Diversity of Sparse Associative Memories <i>Stephen Larroque, Ehsan Sedgh Gooya, Vincent Gripon, and Dominique Pastor</i>	1
Two Minds and Emotion <i>Muneo Kitajima and Makoto Toyota</i>	8
Corpus Callosum Shape Changes in Early Alzheimer’s Disease: An MRI Study Using the Automatic Deformable Model <i>Amira Ben Rabeh, Faouzi Benzarti, Hamid Amiri, and Mouna Bouaziz</i>	17
Connectome Pathways in Parkinson’s Disease Patients with Deep Brain Stimulators <i>Giorgio Bonmassar and Nikos Makris</i>	23
Proposal of an Educational Design to Improve High School Science Students’ Motivation to Enroll in a University’s Department of Science and Engineering <i>Yuto Omae, Katsuko T. Nakahira, and Hirotaka Takahashi</i>	27
On the Role of Contextual Information in the Organization of the Lexical Space <i>Flavia De Simone, Roberta Presta, Simona Collina, and Robert Hartsuiker</i>	31
Implementing Relational-Algebraic Operators for Improving Cognitive Abilities in Networks of Neural Cliques <i>Ala Aboudib, Vincent Gripon, and Baptiste Tessiau</i>	36
In Pursuit of Natural Logics for Ontology-Structured Knowledge Bases <i>Jorgen Fischer Nilsson</i>	42
Modeling Situation Awareness: The Impact of Ecological Interface Design on Driver’s Response Times <i>Thomas Friedrichs and Andreas Ludtke</i>	47
Individual Differences in Deception and Deception Detection <i>Sarah Ita Levitan, Michelle Levine, Julia Hirschberg, Nishmar Cestero, Guozhen An, and Andrew Rosenberg</i>	52
Automatic Face Recognition Using SIFT and Networks of Tagged Neural Cliques <i>Ehsan Sedgh Gooya, Dominique Pastor, and Vincent Gripon</i>	57
Application of Loose Symmetry Bias to Multiple Meaning Environment <i>Ryuichi Matoba, Hiroki Sudo, Makoto Nakamura, and Satoshi Tojo</i>	62
An Experimental Investigation on Learning Activities Inhibition Hypothesis in Cognitive Disuse Atrophy <i>Kazuhisa Miwa, Kazuaki Kojima, and Hitoshi Terai</i>	66

A Dynamic GSOM-based Concept Tree for Capturing Incremental Patterns <i>Pin Huang, Susan Bedingfield, and Daminda Alahakoon</i>	72
Preprocessing of Electroencephalograms by Independent Component Analysis for Spatiotemporal Localization of Brain Activity <i>Takahiro Yamanoi, Yoshinori Tanaka, Hisashi Toyoshima, Toshimasa Yamazaki, and Shin-ich Ohnishi</i>	81
Neural Associative Memories as Accelerators for Binary Vector Search <i>Chendi Yu, Vincent Gripon, Xiaoran Jiang, and Herve Jegou</i>	85
Induction of Intentional Stance in Human-Agent Interaction by Presenting Goal-Oriented Behavior using Multimodal Information <i>Yoshimasa Ohmoto, Jun Furutani, and Toyooki Nishida</i>	90
Comparing Apples and Orange Cottages <i>Julia M. Taylor and Victor Raskin</i>	96
Towards Identifying Ontological Semantic Defaults with Big Data: Preliminary Results <i>Tatiana Ringenberg, Julia Taylor, John Springer, and Victor Raskin</i>	103
Generating Opinion Agent-based Models by Structural Optimisation <i>Alwyn Husselmann</i>	108
Modeling and Studying Cooperative Behavior between Intelligent Virtual Agents by Means of PRE-Think Architecture <i>Dilyana Budakova, Lyudmil Dakovski, and Rumien Trifonov</i>	115
Directional-Change Event Trading Strategy: Profit-Maximizing Learning Strategy <i>Monira Aloud</i>	123
Leader-Following Formation Control with an Adaptive Linear and Terminal Sliding Mode Combined Controller Using Auto-Structuring Fuzzy Neural Network <i>Masanao Obayashi, Kohei Ishikawa, Takashi Kuremoto, Shingo Mabu, and Kunikazu Kobayasi</i>	130
Are You Talking to Me? Detecting Attention in First-Person Interactions <i>Luis Carlos Gonzalez-Garcia, Luz Abril Torres-Mendez, Julieta Martinez, Junaed Sattar, and James J. Little</i>	137
A Proposal of New Method to Support Awareness of Specialization for Interdisciplinary Communication Education <i>Tadashi Fujii, Kyoko Ito, and Shogo Nishida</i>	143
Recurrent Fuzzy Neural Network Controller Design for Ultrasonic Motor Rotor Angle Control <i>Tien-Chi Chen, Tsai-Jiun Ren, and Yi-Wei Lou</i>	150

On the Generation of Privatized Synthetic Data Using Distance Transforms <i>Kato Mivule</i>	156
Flexible Manipulator Inspired by Octopus <i>Shunsuke Hagimori and Kazuyuki Ito</i>	162
A Method to Understand Psychological Factors Needed to Improve Learning Behavior <i>Yuto Omae, Katsuko T. Nakahira, and Hirotaka Takahashi</i>	165
Ecology of Spam Server Under Resilience Force in the e-Network Framework <i>Katsuko Nakahira, T., Kakeru Yamaguchi, and Muneo Kitajima</i>	169
Simulation of the Emergence of Language Groups Using the Iterated Learning Model on Social Networks <i>Makoto Nakamura, Ryuichi Matoba, and Satoshi Tojo</i>	175
Adaptive Anomalies Detection with Deep Network <i>Chao Wu, Yike Guo, and Yajie Ma</i>	181
Towards Audio-based Distraction Estimation in the Car <i>Svenja Borchers, Denis Martin, Sarah Mieskes, Stefan Rieger, Cristobal Curio, and Victor Fassler</i>	187
Towards Support for Verificatin of Adaptative Systems with Djnn <i>Daniel Prun, Mathieu Magnaudet, and Stephane Chatty</i>	191
Adaptive Human-Automation Cooperation. A General Architecture for the Cockpit and its Application in the A-PiMod Project <i>Denis Javaux, Florian Fortmann, and Christoph Mohlenbrink</i>	195
Multidimensional Pilot Crew State Inference for Improved Pilot Crew-Automation Partnership <i>Stefan Suck and Florian Fortmann</i>	201