

Table of Contents – Part I

Session 1: Theoretical Analysis

Does Social Network Always Promote Entrepreneurial Intentions? Part I: Theoretical Model	1
<i>Lu Xiao and Ming Fan</i>	
Association of Anti-Histamine Drugs with Brain Tumor	8
<i>Samreen Feroz, Amatal Habib, Maryam Siddiqua, Sobia Saleem, Nisar Ahmed Shar, and Ali Raza Jafri</i>	
Estimating Principal Point and Nonlinear Parameters of Camera from a Planar Calibration Image	16
<i>Qinyu Zhu</i>	
Design of Distribution Independent Noise Filters with Online PDF Estimation	25
<i>Vipul Arora and Laxmidhar Behera</i>	
Determining Effective Connectivity from FMRI Data Using a Gaussian Dynamic Bayesian Network	33
<i>Xia Wu, Juan Li, and Li Yao</i>	
Transient-Time Fractional-Space Trigonometry and Application	40
<i>A.G. Radwan and Ahmed S. Elwakil</i>	
Understanding Individual Play Sequences Using Growing Self Organizing Maps	48
<i>Manjusri Wickramasinghe, Jayantha Rajapakse, and Daminda Alahakoon</i>	
Audio-Visual Feature Fusion for Speaker Identification	56
<i>Noor Almaadeed, Amar Aggoun, and Abbes Amira</i>	
Decoding Cognitive States from Neural Activities of Somatosensory Cortex	68
<i>Xiaoxu Kang, Marc Schieber, and Nitish V. Thakor</i>	
Cognitive Modeling of Dilution Effects in Visual Search	76
<i>Kleanthis C. Neokleous, Marios N. Avraamides, Costas K. Neocleous, and Christos N. Schizas</i>	
Complexity Analysis of EEG Data during Rest State and Visual Stimulus	84
<i>Wajid Mumtaz, Likun Xia, Aamir Saeed Malik, and Mohd Azhar Mohd Yasin</i>	

Analysis of Alertness Status of Subjects Undergoing the Cortical Auditory Evoked Potential Hearing Test	92
<i>Ahmed Al-Ani, Bram Van Dun, Harvey Dillon, and Alaleh Rabie</i>	
Price Forecasting Using Dynamic Assessment of Market Conditions and Agent’s Bidding Behavior	100
<i>Preetinder Kaur, Madhu Goyal, and Jie Lu</i>	
Non-convex Optimization on Stiefel Manifold and Applications to Machine Learning	109
<i>Takafumi Kanamori and Akiko Takeda</i>	
Local Patch Dissimilarity for Images	117
<i>Liviu Petrisor Dinu, Radu-Tudor Ionescu, and Marius Popescu</i>	
Nearly Optimal Control for Nonlinear Systems with Dead-Zone Control Input Based on the Iterative ADP Approach	127
<i>Dehua Zhang, Derong Liu, and Qinglai Wei</i>	
A Memetic Approach for the Knowledge Extraction	135
<i>Sadjia Benkhider, Oualid Dahmri, and Habiba Drias</i>	
Development of a Novel Conversational Calculator Based on Remote Online Computation	142
<i>Xiaohua Liu, Haoran Liang, Haiwei Dong, and Nikolaos Mavridis</i>	
Load Forecasting Accuracy through Combination of Trimmed Forecasts	152
<i>Saima Hassan, Abbas Khosravi, Jafreezal Jaafar, and Samir B. Belhaouari</i>	
Self Organizing Maps for Visualization of Categories	160
<i>Julian Szymański and Włodzisław Duch</i>	
Learning Anticipation through Priming in Spatio-temporal Neural Networks	168
<i>Nooraini Yusoff and André Grüning</i>	
Set-Similarity Joins Based Semi-supervised Sentiment Analysis	176
<i>Xishuang Dong, Qibo Zou, and Yi Guan</i>	
An Architecture to Efficiently Learn Co-Similarities from Multi-view Datasets	184
<i>Gilles Bisson and Clément Grimal</i>	
Incremental Face Recognition: Hybrid Approach Using Short-Term Memory and Long-Term Memory	194
<i>Sangwook Kim, Rammohan Mallipeddi, and Minho Lee</i>	

A Psychophysiological Analysis of Weak Annoyances in Human Computer Interfaces	202
<i>William M. Mount, Deborah C. Tuček, and Hussein A. Abbass</i>	
Neural and Speech Indicators of Cognitive Load for Sudoku Game Interfaces	210
<i>Deborah C. Tuček, William M. Mount, and Hussein A. Abbass</i>	
Generalized Hamilton-Jacobi-Isaacs Formulation-Based Neural Network H_∞ Control for Constrained Input Nonlinear Systems	218
<i>Yuzhu Huang, Derong Liu, and Qinglai Wei</i>	
Decomposition of the Transfer Entropy: Partial Conditioning and Informative Clustering	226
<i>Guorong Wu, Sebastiano Stramaglia, and Daniele Marinazzo</i>	
Emotion Recognition Using KNN Classification for User Modeling and Sharing of Affect States	234
<i>Imen Tayari Meftah, Nhan Le Thanh, and Chokri Ben Amar</i>	
FPGA Implementation of a Cortical Network Based on the Hodgkin-Huxley Neuron Model	243
<i>Safa Yaghini Bonabi, Hassan Asgharian, Reyhaneh Bakhtiari, Saeed Safari, and Majid Nili Ahmadabadi</i>	
Future Prediction with Hierarchical Episodic Memories under Deterministic and Stochastic Environments	251
<i>Yoshito Aota and Yoshihiro Miyake</i>	
SDE-Driven Service Provision Control	260
<i>Gang Chen, Shaoning Pang, Abdolhossein Sarrafzadeh, Tao Ban, and Daisuke Inoue</i>	
ICHEA – A Constraint Guided Search for Improving Evolutionary Algorithms	269
<i>Anurag Sharma and Dharmendra Sharma</i>	
Adaptive Dynamic Control of Quadrupedal Robotic Gaits with Artificial Reaction Networks	280
<i>Claire E. Gerrard, John McCall, George M. Coghill, and Christopher Macleod</i>	
Bifurcation Analysis of a Two-Dimensional Simplified Hodgkin-Huxley Model Exposed to External Electric Fields	288
<i>Hu Wang, Yongguang Yu, Sha Wang, and Junzhi Yu</i>	

A Sequential Data Mining Method for Modelling Solar Magnetic Cycles	296
<i>Kassim S. Mwitondi, Rameed T. Said, and Adil E. Yousif</i>	
Steady-State Visually Evoked Potential (SSVEP)-Based Brain-Computer Interface (BCI): A Low-Delayed Asynchronous Wheelchair Control System	305
<i>Zhuo Xu, Jie Li, Rong Gu, and Bin Xia</i>	
Weak Projective Lag Synchronization of Neural Networks with Time Delay and Parameter Mismatch	315
<i>Junjian Huang, Chuandong Li, Wei Zhang, and Pengcheng Wei</i>	
Measuring Stress-Reducing Effects of Virtual Training Based on Subjective Response	322
<i>Tibor Bosse, Charlotte Gerritsen, Jeroen de Man, and Jan Treur</i>	
Calibration of Low Density EEG Sensor Arrays for Brain Source Localization	331
<i>Tahereh Zarghami, Hasan S. Mir, and Hasan Al-Nashash</i>	
A Novel Ontological Technique for Sentiment Analysis	339
<i>Kye Lok Tan, Jer Lang Hong, and Ee Xion Tan</i>	
Learning Temporal Coherent Features through Life-Time Sparsity	347
<i>Jost Tobias Springenberg and Martin Riedmiller</i>	
The Circuit Realization of a Neuromorphic Computing System with Memristor-Based Synapse Design	357
<i>Beiyue Liu, Yiran Chen, Bryant Wysocki, and Tingwen Huang</i>	
Discriminative Feature Analysis and Selection for Document Classification	366
<i>Punya Murthy Chinta and M. Narasimha Murthy</i>	
Training Minimum Enclosing Balls for Cross Tasks Knowledge Transfer	375
<i>Shaoning Pang, Fan Liu, Youki Kadobayashi, Tao Ban, and Daisuke Inoue</i>	
Structures of Surround Modulation for the Border-Ownership Selectivity of V2 Cells	383
<i>Yusuke Nakata and Ko Sakai</i>	
Characterisation of Information Flow in an Izhikevich Network	392
<i>Li Guo, Zhijun Yang, Bruce Graham, and Daqiang Zhang</i>	
Estimating Brain Activity of Motor Learning by Using fNIRS-GLM Analysis	401
<i>Takahiro Imai, Takanori Sato, Isao Nambu, and Yasuhiro Wada</i>	

Double Approximate Identity Neural Networks Universal Approximation in Real Lebesgue Spaces	409
<i>Zarita Zainuddin and Saeed Panahian Fard</i>	
Stabilizing Relaxed Nonlinear FMA Yields a (Combinatorial) Optimizer	416
<i>Zekeriya Uykan</i>	
Iterative Evolutionary Subspace Clustering	424
<i>Lydia Boudjeloud-Assala and Alexandre Blansch�</i>	
Dynamic Health Level 7 Packetizer for <i>On-the-Fly</i> Integrated Healthcare Enterprises (IHE) in Disaster Zones	432
<i>Junaid Ahsenali Chaudhry, Uvais A. Qidwai, and Lee Malrey</i>	
Budgeted Knowledge Transfer for State-Wise Heterogeneous RL Agents	439
<i>Farbod Farshidian, Zeinab Talebpour, and Majid Nili Ahmadabadi</i>	
Supervised Isomap Based on Pairwise Constraints	447
<i>Jian Cheng, Can Cheng, and Yi-nan Guo</i>	
<i>r</i> -Anonymized Clustering	455
<i>Wenye Li</i>	
Improved Differential Evolution via Cuckoo Search Operator	465
<i>Pakarat Musigawan, Sirapat Chiewchanwattana, and Khamron Sunat</i>	
Modelling Temporal Aspects of Situation Awareness	473
<i>Tibor Bosse, Robbert-Jan Merk, and Jan Treur</i>	
Apparent Volitional Behavior Selection Based on Memory Predictions	484
<i>Jun-Cheol Park, Jae Hyeon Yoo, Juhyeon Lee, and Dae-Shik Kim</i>	
Sampling Normal Distribution Restricted on Multiple Regions	492
<i>Jun Li and Dacheng Tao</i>	
An Estimation of Cell Forces with Hierarchical Bayes Approach Considering Cell Morphology	501
<i>Satoshi Kozawa, Yuichi Sakumura, Michinori Toriyama, Naoyuki Inagaki, and Kazushi Ikeda</i>	
Simultaneous Feature Selection and Clustering Using Particle Swarm Optimization	509
<i>Swetha K.P. and V. Susheela Devi</i>	
Hybrid Online Non-negative Matrix Factorization for Clustering of Documents	516
<i>Vinod Jadhao and M. Narasimha Murty</i>	

Retrieval of Semantic Concepts Based on Analysis of Texts for Automatic Construction of Ontology	524
<i>Reshmy Krishnan, Amir Hussain, and Sherimon P.C.</i>	
Statistical Analysis of Arabic Phonemes Used in Arabic Speech Recognition	533
<i>Khalid M. O Nahar, Mustafa Elshafei, Wasfi G. Al-Khatib, Husni Al-Muhtaseb, and Mansour M. Alghamdi</i>	
Manifold Analysis of Spectral Munsell Colors	543
<i>Hongyu Li, Chen Lin, Junyu Niu, Lin Zhang, and Jussi Parkkinen</i>	
Discrete-Time Hopfield Neural Network Based Text Clustering Algorithm	551
<i>Zekeriya Uykan, Murat Can Ganiz, and Çağla Şahinli</i>	
Trust and Equity Theory in Prisoner's Dilemma	560
<i>Eun-Soo Jung, Bo-Kyeong Kim, and Soo-Young Lee</i>	
Fault Diagnosis of a High-Speed Automaton Based on Structure Vibration Response Analysis	568
<i>Hongxia Pan, Mingzhi Pan, Runpeng Zhao, and Haifeng Ren</i>	
Over-Sampling from an Auxiliary Domain	576
<i>Samir Al-Stouhi and Abhilash Pandya</i>	
Decoding Network Activity from LFPs: A Computational Approach	584
<i>Mufti Mahmud, Davide Travalin, and Amir Hussain</i>	
Evolutionary Design of the Closed Loop Control on the Basis of NN-ANARX Model Using Genetic Algorithm	592
<i>Kristina Vassiljeva, Eduard Petlenkov, and Sven Nomm</i>	
Psychophysiological Evaluation of Task Complexity and Cognitive Performance in a Human Computer Interface Experiment	600
<i>William M. Mount, Deborah C. Tuček, and Hussein A. Abbass</i>	
Interval-Valued Fuzzy Extension of Formal Concept Analysis for Information Retrieval	608
<i>Loutfi Zerarga and Yassine Djouadi</i>	
Approximation of Feature Vectors in Nonnegative Matrix Factorization with Gaussian Radial Basis Functions	616
<i>Rafał Zdunek</i>	
RAFNI: Robust Analysis of Functional NeuroImages with Non-normal α -Stable Error	624
<i>Halima Bensmail, Samreen Anjum, Othmane Bouhali, and Mohammed El Anbari</i>	

Authorship Attribution of Electronic Documents Comparing the Use of Normalized Compression Distance and Support Vector Machine in Authorship Attribution	632
<i>Walter Ribeiro de Oliveira Jr., Edson J.R. Justino, and Luiz S. Oliveira</i>	
Semantic Levels of Domain-Independent Commonsense Knowledgebase for Visual Indexing and Retrieval Applications	640
<i>Amjad Altadmri, Amr Ahmed, and Haytham Mohtasseb</i>	
Automated Segmentation and Tracking of Dynamic Focal Adhesions in Time-Lapse Fluorescence Microscopy	648
<i>Guannan Li and Nasir Rajpoot</i>	
Towards IMACA: Intelligent Multimodal Affective Conversational Agent	656
<i>Amir Hussain, Erik Cambria, Thomas Mazzocco, Marco Grassi, Qiu-Feng Wang, and Tariq Durrani</i>	
The Optimal Control of Discrete-Time Delay Nonlinear System with Dual Heuristic Dynamic Programming	664
<i>Bin Wang and Dongbin Zhao</i>	
Towards Applying Associative Classifier for Genetic Variants	673
<i>Sofianita Mutalib, Shuzlina Abdul Rahman, and Azlinah Mohamed</i>	
Brain Computer Interfacing Using Humour and Memory Recall	681
<i>Ahmed Izzidien, Mohammed Ali Roula, Sony Mallipudi, Sri Krishna Chaitanya Ogirala, and Srikanth Bantupalli</i>	
On the Reconstruction of Genetic Network from Partial Microarray Data	689
<i>Ahsan Raja Chowdhury, Madhu Chetty, and Xuan Nguyen Vinh</i>	
Author Index	697