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Bio-inspired Computing – Theories and Applications

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Preface

Bio-inspired computing is a field of study that abstracts computing ideas (data structures, operations with data, ways to control operations, computing models, etc.) from living phenomena or biological systems such as evolution, cells, tissues, neural networks, immune system, and ant colonies. Bio-Inspired Computing: Theories and Applications (BIC-TA) is a series of conferences that aims to bring together researchers working in the main areas of natural computing inspired from biology, for presenting their recent results, exchanging ideas, and cooperating in a friendly framework. The conference has four main topics: evolutionary computing, neural computing, DNA computing, and membrane computing.

Since 2006, the conference has taken place at Wuhan (2006), Zhengzhou (2007), Adelaide (2008), Beijing (2009), Liverpool and Changsha (2010), Penang (2011), Gwalior (2012), Anhui (2013), Wuhan (2014), and Anhui (2015). Following the success of previous editions, the 11th International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA 2016) was organized by Xidian University, during October 28–30, 2016.

BIC-TA 2016 attracted a wide spectrum of interesting research papers on various aspects of bio-inspired computing with a diverse range of theories and applications. We received 343 submissions, of which 115 papers were selected for two volumes of *Communications in Computer and Information Science*.

We gratefully thank Xidian University, Huazhong University of Science and Technology, and Northwestern Polytechnical University for extensive assistance in organizing the conference. We also thank Dr. Jiao Shi and all other volunteers, whose efforts ensured the smooth running of the conference.

The editors warmly thank the Program Committee members for their prompt and efficient support in reviewing the papers, and the authors of the submitted papers for their interesting papers.

Special thanks are due to Springer for their skilled cooperation in the timely production of these volumes.

October 2016

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Contents – Part I

DNA Computing

DNA Self-assembly Model to Solve Compound Logic Operators Problem . . . 3
Shihua Zhou, Bin Wang, Xuedong Zheng, and Changjun Zhou

Model Checking Computational Tree Logic Using Sticker Automata 12
Weijun Zhu, Yanfeng Wang, Qinglei Zhou, and Kai Nie

Two-Digit Full Subtractor Logical Operation Based on DNA Strand Displacement 21
Junwei Sun, Xing Li, Chun Huang, Guangzhao Cui, and Yanfeng Wang

One-Bit Full Adder-Full Subtractor Logical Operation Based on DNA Strand Displacement 30
Yanfeng Wang, Xing Li, Chun Huang, Guangzhao Cui, and Junwei Sun

Logic Gate Based on Circular DNA Structure with Strand Displacement 39
Guangzhao Cui, Xi Wang, Xuncai Zhang, Ying Niu, and Hua Liu

The Working Operation Problem Based on Probe Machine Model 47
Jing Yang and Zhixiang Yin

Matrix Flat Splicing Systems 54
Rodica Ceterchi, Linqiang Pan, Bosheng Song, and K.G. Subramanian

A Universal Platform for Building DNA Logic Circuits 64
Zicheng Wang, Jian Ai, Yanfeng Wang, Guangzhao Cui, and Lina Yao

Membrane Computing

A Hybrid "Fast-Slow" Convergent Framework for Genetic Algorithm Inspired by Membrane Computing 75
Zhongwei Li, Shengyu Xia, Yun Jiang, Beibei Sun, Yuezhen Xin, and Xun Wang

An Image Threshold Segmentation Algorithm with Hybrid Evolutionary Mechanisms Based on Membrane Computing 85
Shuo Liu, Kang Zhou, Shan Zeng, Huaqing Qi, and Tingfang Wu

K-Medoids-Based Consensus Clustering Based on Cell-Like P Systems with Promoters and Inhibitors 95
Xiyu Liu, Yuzhen Zhao, and Wenxing Sun

Fault Classification of Power Transmission Lines Using Fuzzy Reasoning Spiking Neural P Systems 109
Kang Huang, Gexiang Zhang, Xiaoguang Wei, Haina Rong, Yangyang He, and Tao Wang

Membrane Algorithm with Genetic Operation and VRPTW-Based Public Optimization System 118
Yingying Duan, Kang Zhou, Huaqing Qi, and Zhiqiang Zhang

An Immune Algorithm Based on P System for Classification 133
Lian Ye and Ping Guo

Simulation of Fuzzy *ACSH* on Membranes with Michaelis-Menten Kinetics . . . 142
J. Philomenal Karoline, P. Helen Chandra, S.M. Saroja Theerdus Kalavathy, and A. Mary Imelda Jayaseeli

A Family P System of Realizing RSA Algorithm 155
Ping Guo and Wei Xu

A General Object-Oriented Description for Membrane Computing. 168
Xiyu Liu, Yuzhen Zhao, and Wenping Wang

Matrix Representation of Parallel Computation for Spiking Neural P Systems 187
Juan Hu, Guangchun Chen, Hong Peng, Jun Wang, Xiangnian Huang, and Xiaohui Luo

The Computational Power of Array P System with Mate Operation. 200
P. Helen Chandra, S.M. Saroja T. Kalavathy, and M. Nithya Kalyani

The Computational Power of Watson-Crick Grammars: Revisited 215
Nurul Liyana Mohamad Zulkufli, Sherzod Turaev, Mohd Izzuddin Mohd Tamrin, and Azeddine Messikh

An Improvement of Small Universal Spiking Neural P Systems with Anti-Spikes 226
Shuo Liu, Kang Zhou, Shan Zeng, Huaqing Qi, and Xing Chen

The Implementation of Membrane Clustering Algorithm Based on FPGA . . . 237
Yunying Yang, Jun Ming, Jun Wang, Hong Peng, Zhang Sun, and Wenping Yu

Tools and Simulators for Membrane Computing-A Literature Review 249
S. Raghavan and K. Chandrasekaran

Parallel Contextual Hexagonal Array P Systems 278
James Immanuel Suseelan, D.G. Thomas, Robinson Thamburaj, Atulya K. Nagar, and S. Jayasankar

Superadiabatic STIRAP: Population Transfer and Quantum Rotation Gates 299
Youssouf Hamidou Issoufa and Azeddine Messikh

Image Segmentation Using Membrane Computing: A Literature Survey. 314
Rafaa I. Yahya, Siti Mariyam Shamsuddin, Salah I. Yahya, Shafatnnur Hasan, Bisan Al-Salibi, and Ghada Al-Khafaji

Integrated Membrane Computing Framework for Modeling Intrusion Detection Systems. 336
Rufai Kazeem Idowu, Ravie Chandren Muniyandi, and Zulaiha Ali Othman

Neural Computing

A Deep Learning Model of Automatic Detection of Pulmonary Nodules Based on Convolution Neural Networks (CNNs). 349
Xiaojiao Xiao, Yan Qiang, Juanjuan Zhao, and Pengfei Zhao

A Study on the Recognition and Classification Method of High Resolution Remote Sensing Image Based on Deep Belief Network 362
Guanyu Chen, Xiang Li, and Ling Liu

Classification Based on Brain Storm Optimization Algorithm 371
Yu Xue, Tao Tang, and Tinghuai Ma

Stacked Auto-Encoders for Feature Extraction with Neural Networks 377
Shuanglong Liu, Chao Zhang, and Jinwen Ma

Fault Diagnosis of Power Systems Based on Triangular Fuzzy Spiking Neural P Systems 385
Chengyu Tao, Wenping Yu, Jun Wang, Hong Peng, Ke Chen, and Jun Ming

A Recognition Method of Hand Gesture with CNN-SVM Model 399
Miao Ma, Zuxue Chen, and Jie Wu

Cross-Media Information Retrieval with Deep Convolutional Neural Network 405
Liang Bai, Tianyuan Yu, Jinlin Guo, Zheng Yang, and Yuxiang Xie

Exploration of the Critical Diameter in Networks 411
Haifeng Du, Jingjing Wang, Xiaochen He, and Wei Du

Image Compression Based on Genetic Algorithm and Deep Neural Network 417
Haisheng Deng, Hongying Liu, Feixiang Wang, Zhi Wang, and Yikai Wang

DNN-Based Joint Classification for Multi-source Image Change Detection . . . 425
Wenping Ma, Zhizhou Li, Puzhao Zhang, and Tianyu Hu

Differencing Neural Network for Change Detection in Synthetic Aperture Radar Images . . . 431
Feng Chen, Jiao Shi, and Maoguo Gong

Change Detection in Synthetic Aperture Radar Images Based on Fuzzy Restricted Boltzmann Machine . . . 438
Na Li, Jiao Shi, and Maoguo Gong

Machine Learning

Decision Variable Analysis Based on Distributed Computing . . . 447
Zhao Wang, Maoguo Gong, and Tian Xie

A Multi-task Learning Approach by Combining Derivative-Free and Gradient Methods . . . 456
Yiqi Hu and Yang Yu

A Collaborative Learning Model in Teaching-Learning-Based Optimization: Some Numerical Results . . . 466
Bei Dong, Xiaojun Wu, and Yifei Sun

Incremental Learning with Concept Drift: A Knowledge Transfer Perspective . . . 473
Yu Sun and Ke Tang

Visual Tracking Based on Ensemble Learning with Logistic Regression. . . . 480
Xiaolin Tian, Sujie Zhao, and Licheng Jiao

A New Optimal Neuro-Fuzzy Inference System for MR Image Classification and Multiple Scleroses Detection. . . . 487
Hakima Zouaoui, Abdelouahab Moussaoui, Abdelmalik Taleb-Ahmed, and Mourad Oussalah

The Influence of Diversification Strategy on Capital Structure . . . 494
Xuefeng Li

An Improved Hybrid Bat Algorithm for Traveling Salesman Problem . . . 504
Wedad Al-sorori, Abdulqader Mohsen, and Walid Aljoby ßer

Design of Selecting Security Solution Using Multi-objective Genetic Algorithm. . . . 512
Yunghee Lee, Jaehun Jung, and Chang Wook Ahn

A Multi-agent System for Creating Art Based on Boids with Evolutionary and Neural Networks 518
Tae Jong Choi, Jaehun Jeong, and Chang Wook Ahn

Author Index 525

Contents – Part II

Evolutionary Computing

Kernel Evolutionary Algorithm for Clustering 3
Xiangming Jiang, Jingjing Ma, and Chao Lei

A Multi-parent Crossover Based Genetic Algorithm for Bi-Objective Unconstrained Binary Quadratic Programming Problem 10
Chao Huo, Rongqiang Zeng, Yang Wang, and Mingsheng Shang

Unsupervised Image Segmentation Based on Watershed and Kernel Evolutionary Clustering Algorithm 20
Chao Lei, Jingjing Ma, and Xiangming Jiang

Classification Based on Fireworks Algorithm 35
Yu Xue, Binping Zhao, and Tinghuai Ma

Overlapping Community Detection in Network: A Fuzzy Evaluation Approach 41
Wei Zhao, Yangzhi Guo, Chao Lei, and Jianan Yan

Multifactorial Brain Storm Optimization Algorithm 47
Xiaolong Zheng, Yu Lei, Maoguo Gong, and Zedong Tang

An Improved Heuristic Algorithm for UCAV Path Planning 54
Kun Zhang, Peipei Liu, Weiren Kong, Yu Lei, Jie Zou, and Min Liu

An Efficient Benchmark Generator for Dynamic Optimization Problems 60
Changhe Li

Ensemble of Different Parameter Adaptation Techniques in Differential Evolution 73
Liang Wang and Wenyin Gong

Research on Multimodal Optimization Algorithm for the Contamination Source Identification of City Water Distribution Networks 80
Xuesong Yan, Jing Zhao, and Chengyu Hu

Visual Tracking by Sequential Cellular Quantum-Behaved Particle Swarm Optimization Algorithm 86
Junyi Hu, Wei Fang, and Wangtong Ding

An Improved Search Algorithm About Spam Firewall 95
Kangshun Li, Lu Xiong, and Zhichao Wen

Artificial Bee Colony Algorithm Based on Clustering Method and Its Application for Optimal Power Flow Problem 101
Liling Sun and Hanning Chen

Study on Hybrid Intelligent Algorithm with Solving Pre-stack AVO Elastic Parameter Inversion Problem 107
Qinghua Wu, Ying Hao, and Xuesong Yan

A Hybrid Multi-objective Discrete Particle Swarm Optimization Algorithm for Cooperative Air Combat DWTA 114
Guang Peng, Yangwang Fang, Shaohua Chen, Weishi Peng, and Dandan Yang

A Novel Image Fusion Method Based on Shearlet and Particle Swarm Optimization. 120
Qiguang Miao, Ruyi Liu, Yiding Wang, and Jianfeng Song

Generalized Project Gradient Algorithm for Solving Constrained Minimax Problems 127
Cong Zhang, Limin Sun, and Zhibin Zhu

A Real Adjacency Matrix-Coded Differential Evolution Algorithm for Traveling Salesman Problems 135
Hang Wei, Zhifeng Hao, Han Huang, Gang Li, and Qinqun Chen

A Hybrid IWO Algorithm Based on Lévy Flight. 141
Xuncai Zhang, Xiaoxiao Wang, Guangzhao Cui, and Ying Niu

Evolutionary Process: Parallelism Analysis of Differential Evolution Algorithm Based on Graph Theory 151
Xiaoqi Peng, Zhifeng Hao, Han Huang, Hongyue Wu, and Fangqing Liu

A Mean Shift Assisted Differential Evolution Algorithm 163
Hui Fang, Aimin Zhou, and Guixu Zhang

Quantum-Behaved Particle Swarm Optimization Using MapReduce. 173
Yangyang Li, Zhenghan Chen, Yang Wang, and Licheng Jiao

Dynamic Fitness Landscape Analysis on Differential Evolution Algorithm . . . 179
Shuling Yang, Kangshun Li, Wei Li, Weiguang Chen, and Yan Chen

Improving Artificial Bee Colony Algorithm with Historical Archive 185
Yalan Zhou, Jiahai Wang, Shangce Gao, Xing Yang, and Jian Yin

Recent Advances in Evolutionary Programming 191
Jing Yu and Lining Xing

Application of Discrete Ant Colony Optimization in VRPTW. 204
Qinhong Fu, Kang Zhou, Huaqing Qi, and Tingfang Wu

Differential Evolution Algorithm with the Second Order Difference Vector . . . 219
Xinchao Zhao, Dongyue Liu, Xingquan Zuo, Huiping Liu, and Rui Li

Multi-objective Optimization

Biomimicry of Plant Root Foraging for Distributed Optimization: Models and Emergent Behaviors . . . 231
Hanning Chen, Xiaodan Liang, Maowei He, and Weixing Su

Adaptive Bacterial Foraging Algorithm and Its Application in Mobile Robot Path Planning . . . 241
Xiaodan Liang, Maowei He, and Hanning Chen

A Novel Hierarchical Artificial Bee Colony Optimizer and Its Application for Model-Based Prediction of Droplet Characteristic in 3D Electronic Printing . . . 247
Maowei He and Hanning Chen

Research on Network-on-Chip Automatically Generate Method Based on Hybrid Optimization Mapping . . . 254
Chao Li and Yuqiang Chen

Evolutionary Algorithms for Many-Objective Ground Station Scheduling Problem . . . 265
Zhongshan Zhang, Lining Xing, Yuning Chen, and Pei Wang

Indicator-Based Multi-objective Bacterial Foraging Algorithm with Adaptive Searching Mechanism . . . 271
Lianbo Ma, Xu Li, Tianhan Gao, Qiang He, Guangming Yang, and Ying Liu

Applying K-means Clustering and Genetic Algorithm for Solving MTSP . . . 278
Zhanqing Lu, Kai Zhang, Juanjuan He, and Yunyun Niu

A Multi-objective Optimization Algorithm Based on Tissue P System for VRPTW . . . 285
Wenbo Dong, Kang Zhou, Huaqing Qi, Cheng He, Jun Zhang, and Bosheng Song

The Subideal Version of the SOI-Algorithm and Its Application . . . 302
Haifeng Sang and Qingchun Li

A Diversity Keeping Strategy for the Multi-objective Examination Timetabling Problem . . . 310
Yu Lei, Jiao Shi, and Kun Zhang

A Grid-Based Decomposition for Evolutionary Multiobjective Optimization. 316
Zhiwei Mei, Xinye Cai, and Zhun Fan

Multi-objective Evolutionary Algorithm for Enhancing the Robustness of Networks 322
Zheng Li, Shanfeng Wang, and Wenping Ma

Multi-objective Optimization with Nonnegative Matrix Factorization for Identifying Overlapping Communities in Networks. 328
Hongmin Liu, Hao Li, and Wei Zhao

Magnetic Bacterial Optimization Algorithm for Mobile Robot Path Planning 334
Hongwei Mo, Lifang Xu, and Chaomin Luo

Pattern Recognition

A Simple Deep Feature Representation for Person Re-identification. 343
Shengke Wang, Lianghua Duan, Yong Zhao, and Junyu Dong

A Common Strategy to Improve Community Detection Performance Based on the Nodes' Property 355
Wei Du and Xiaochen He

HVS-Inspired Dimensionality Reduction Model Based on Factor Analysis . . . 362
Zhigang Shang, Mengmeng Li, and Yonghui Dong

Human Face Reconstruction from a Single Input Image Based on a Coupled Statistical Model 373
Yujuan Sun, Muwei Jian, and Junyu Dong

Research on Micro-blog New Word Recognition Based on MapReduce. 379
Chaoting Xiao, Jianhou Gan, Bin Wen, Wei Zhang, and Xiaochun Cao

A Memetic Kernel Clustering Algorithm for Change Detection in SAR Images 388
Yangyang Li, Gao Lu, and Licheng Jiao

Collaborative Rating Prediction Based on Dynamic Evolutionary Heterogeneous Clustering. 394
Jianrui Chen, Uliji, Hua Wang, and Chunxia Zhao

Improving Sample Optimization with Convergence Speed Controller for Sampling-Based Image Matting 400
Liang Lv, Han Huang, Zhaoquan Cai, and Yihui Liang

An Improved Extraction Algorithm About Disease Spots 407
Lu Xiong, Dongbo Zhang, and Kangshun Li

Fine-Grained Image Categorization with Fisher Vector 413
Xiaolin Tian, Xin Ding, and Licheng Jiao

Analysis of SNP Network Structure Based on Mutual Information of Breast Cancer Susceptibility Genes 420
Shudong Wang, Shanqiang Zhang, Shanshan Li, Xinzeng Wang, Sicheng He, Yan Zhao, Xiaodan Fan, Fayou Yuan, Xinjie Zhu, and Yun Jiang

Novel Image Deconvolution Algorithm Based on the ROF Model. 431
Su Xiao

Nucleic Acid Secondary Structures Prediction with Planar *Pseudoknots* Using Genetic Algorithm 441
Zhang Kai, Li Shangyi, He Juanjuan, and Niu Yunyun

The Short-Term Traffic Flow Prediction Based on MapReduce. 448
Suping Liu and Dongbo Zhang

Saliency Detection Model for Low Contrast Images Based on Amplitude Spectrum Analysis and Superpixel Segmentation. 454
Hua Yang, Xin Xu, and Nan Mu

Memetic Image Segmentation Method Based on Digraph Coding 461
Tao Wu, Jiao Shi, and Yu Lei

Change Detection in Remote Sensing Images Based on Clonal Selection Algorithm 467
Tao Wu, Yu Lei, and Maoguo Gong

Others

An Improved Algorithm for Constructing Binary Trees Using the Traversal Sequences 475
Fangxiu Wang, Kang Zhou, Huaqing Qi, and Bosheng Song

Improved Multi-step Iterative Algorithms for the Fixed Points of Strongly Pseudo-Contractive Mappings. 489
Jiangrong Liu, Kang Zhou, Shan Zeng, Huaqing Qi, Bosheng Song, and Tingfang Wu

Grammar Automatic Checking System for English Abstract of Master's Thesis 497
Yueting Xu, Ziheng Wu, Han Huang, Tianxiong Yang, Pan Yu, and Erang Lu

Verified Error Bounds for Symmetric Solutions of Operator Matrix Equations 507
Qingchun Li, Ziyu Li, Haifeng Sang, and Panpan Liu

Immune Multipath Reliable Transmission with Fault Tolerance in Wireless Sensor Networks 513
Hongbing Li, Dong Zeng, Liwan Chen, Qiang Chen, Mingwei Wang, and Chunjiong Zhang

The Research of Solving Inverse Problems of Complex Differential Equations 518
Kangshun Li, Yan Chen, and Jun He

Fast Algorithms for Verifying Centrosymmetric Solutions of Sylvester Matrix Equations 524
Ziyu Li, Haifeng Sang, and Ying Zhao

Research on Distributed Anomaly Traffic Detection Technology Based on Hadoop Platform 530
Qiang Chen

Author Index 537