

2013 IEEE 6th International Workshop on Computational Intelligence and Applications

(IWCIA 2013)

**Hiroshima, Japan
13 July 2013**



**IEEE Catalog Number: CFP1361U-POD
ISBN: 978-1-4673-5724-1**

Table of Contents

Harmonic Filters Planning of System for Specially Connected Transformers Using PSO-NTVE Method Ying-Pin Chang	9
Emotion Orientated Recommendation System for Hiroshima Tourist by Fuzzy Petri Net Takumi Ichimura and Issei Tachibana	15
An Estimation of Favorite Value in Emotion Generating Calculation by Fuzzy Petri Net Takumi Ichimura and Kosuke Tanabe	21
Development of automatic positioning system for bicycle saddle based on lower limb's EMG signals during pedaling motion Tatsushi Tokuyasu, Shimpei Matsumoto, Shoma Kushizaki and Tomoki Kitawaki	27
Geometric Transformation Based Multiplicative Data Perturbation For Privacy Preserving Data Mining Hitesh Chhinkaniwala, Aniket Patel and Sanjay Garg	P IC
Approach to Identifying Out-of-Control Variables in Multivariate T squared Control Chart Using AIC Yasuhiko Takemoto, Rumi Tanaka and Ikuo Arizono	39
Dependent Input Neuron Selection in Contradiction Resolution Ryotaro Kamimura	45
Automatic Bone Boundary Detection in Hand Radiographs by Using Modified Level Set Method and Diffusion Filter Syaiful Anam, Eiji Uchino, Hideaki Misawa and Noriaki Suetake	51
Location-based Burst Detection Algorithm for Georeferenced Document Streams based on User's Moving Direction Tomoki Matsui, Keiichi Tamura and Hajime Kitakami	57
A study of the evacuation behavior simulation to investigate the effect of concessions and obstacles Kentaro Tani, Yoshinobu Maeda and Nao Ito	63
Meta-heuristic Algorithms Applied to the Optimization of Type-1 and Type 2 TSK Fuzzy Logic Systems for Sea Water Level Prediction Nguyen Cong Long and Phayung Meesad	69
Parallel Ant Programming Using Genetic Operators Akira Hara, Jun-ichi Kushida, Souichi Tanabe and Tetsuyuki Takahama	75

Interval-valued Differential Evolution for Evolving Neural Networks with Interval Weights and Biases Hidehiko Okada	81
Structural Optimization of Neural Network for Data Prediction Using Dimensional Compression and Tabu Search Tomohiro Hayashida, Ichiro Nishizaki and Tsubasa Matsumoto	85
A (μ, λ) Evolutionary and Particle Swarm Hybrid Algorithm, with an Application to Dinosaur Gait Optimization Yoshiyuki Matsumura, Ayumu Kobayashi, Kiyotaka Sugiyama, Todd Pataky, Bill Sellers, Toshiyuki Yasuda and Kazuhiro Ohkura	89
Segmentation-based Illumination Normalization for Face Detection Min Yao, Kota Aoki and Hiroshi Nagahashi	95
Detecting Electrical Stimulation of Cortical Mapping from Recorded Awake Surgery Sounds Toshihiko Nishimura and Tomoharu Nagao	101
Constraint Propagation + Ant Colony Optimization for Automated School Timetabling Makoto Koshino and Takahiro Otani	107
Genetic Programming with Multiple Initial Populations Generated by Simulated Annealing Takuya Mototsuka, Akira Hara, Jun-ichi Kushida and Tetsuyuki Takahama	113
Island-Based Differential Evolution with Varying Subpopulation Size Jun-ichi Kushida, Akira Hara, Tetsuyuki Takahama and Ayumi Kido	119
Hierarchical Modular Reinforcement Learning Method and Knowledge Acquisition of State-Action Rule for Multi-target Problem Takumi Ichimura and Daisuke Igaue	125
Detection of Electrical Stimulation Position in Recorded Surgery Videos of Cortical Mapping in Awake Brain Surgery Masanori Suganuma and Tomoharu Nagao	131
Parallel Processing of Approximate Sequence Matching using Disk-based Suffix Tree on Multi-core CPU Yosuke Watanuki, Keiichi Tamura, Hajime Kitakami and Yoshifumi Takahashi	137
Personal Tour Planning Incorporating Standard Tour Routes and Tourist Satisfaction Takashi Hasuike, Hideki Katagiri, Hiroe Tsubaki and Hiroshi Tsuda	143
Automatic Construction of Single Frame Super-Resolution Using Cartesian Genetic Programming Yusuke Natsui and Tomoharu Nagao	149

An Empirical Study of Concept Drift Detection for the Prediction of TAIEX Futures	
Hong-Che Lin and Kuo-Wei Hsu	155
Solving the Wafer Probing Scheduling Problem Using Water Flow-like Algorithm	
Chin-Chih Chang and Feng-Chia Li.....	161
An interactive multiobjective programming approach to tour route planning problems	
Hideki Katagiri, Takeshi Uno, Kosuke Kato, Hiroshi Tsuda and Hiroe Tsubaki	167
Stereo vision For the Measurement of Turning Tool Size	
Pei-Ju Chiang and Geng-Hao Ping	173
Credit Risk Evaluation of Investment Corporation Bonds	
Hiroshi Tsuda and Masakazu Ando	179
A New Message Flooding Protocol for Ad-hoc Social Community Sharing Real-time Market Information	
Tetsuya Shigeyasu and Takumi Ichimura	185
Early Discovery of Chronic Non-attenders by Using NFC Attendance Management System	
Takumi Ichimura and Shin Kamada.....	191
A Method using Linguistic and Acoustic Features to Detect Inadequate Utterances in Medical Communication	
Michihisa Kurisu, Kazuya Mera, Ryunosuke Wada, Yoshiaki Kurosawa and Toshiyuki Takezawa	197
An End-to-End Middleware Solution With Multiple Concurrent Applications Support for Wireless Body Area Networks	
Mo Haghighi	201
Genetic Algorithm-based Feature Selection for Decision Tree Classification And its Application to Credit Risk Analysis	
Zhiyi Xue and Steve Chen	P IC
Scene Classification Using Color and Structure-based Features	
Ken Shimazaki and Tomoharu Nagao	211
Author Index	217