

2013 IEEE 6th International Workshop on Computational Intelligence and Applications

July 13, 2013

Technical Program Time Table

	Room A (5F 502)	Room B (5F 504)	Room C (6F 602)
9:30 – 10:45	Intelligent Agent	Neural Networks	Business Intelligence
10:55 – 12:10	Medical Engineering	Parallel Processing	Mobile Networking System and Application
Lunch Time			
13:00 – 14:00	IEEE SMC Hiroshima Chapter Lecture (in Japanese) (4F 404) Campus Tour in Hiroshima City University		
14:10 – 15:50	Swarm Intelligence	Data Mining	Organized Session: Intelligent Applications
16:05 – 17:20	Evolutionary Computation	Image Processing	Decision Making of Tourism
17:30 –	Closing ceremony (4F 404)		

Convivial Party will be held at 19:00 – 21:00.

Each paper presentations lasts for 20 minutes, followed by 5 minute discussion
(a total of 25 minutes).

Technical Program: Room A (5F 502)

Time	Session: Intelligent Agent (Chair: Prof. Yoshinobu Maeda)
09:30-09:55	Hierarchical Modular Reinforcement Learning Method and Knowledge Acquisition of State-Action Rule for Multi-target Problem <i>Takumi Ichimura and Daisuke Igaue</i>
09:55-10:20	A study of the evacuation behavior simulation to investigate the effect of concessions and obstacles <i>Kentaro Tani, Yoshinobu Maeda and Nao Ito</i>
10:20-10:45	An Estimation of Favorite Value in Emotion Generating Calculation by Fuzzy Petri Net <i>Takumi Ichimura and Kosuke Tanabe</i>

Coffee Break

Time	Session: Medical Engineering (Chair: Dr. Tomoko Tateyama)
10:55-11:20	Automatic Bone Boundary Detection in Hand Radiographs by Using Modified Level Set Method and Diffusion Filter <i>Syaiful Anam, Eiji Uchino, Hideaki Misawa and Noriaki Suetake</i>
11:20-11:45	Detecting Electrical Stimulation of Cortical Mapping from Recorded Awake Surgery Sounds <i>Toshihiko Nishimura and Tomoharu Nagao</i>
11:45-12:10	Detection of Electrical Stimulation Position in Recorded Surgery Videos of Cortical Mapping in Awake Brain Surgery <i>Masanori Sukanuma and Tomoharu Nagao</i>

Lunch Time

IEEE SMC Hiroshima Chapter Lecture (in Japanese)(13:00-14:00)

Speaker: Prof. Tetsuyuki Takahama (4F 404)

Campus tour in Hiroshima City University (13:00-14:00)

Time	Session: Swarm Intelligence (Chair: Dr. Takeshi Matsui)
14:10-14:35	Harmonic Filters Planning of System for Specially Connected Transformers Using PSO-NTVE Method <i>Ying-Pin Chang</i>

14:35-15:00	Meta-heuristic Algorithms Applied to the Optimization of Type-1 and Type 2 TSK Fuzzy Logic Systems for Sea Water Level Prediction <i>Nguyen Cong Long and Phayung Meesad</i>
15:00-15:25	Parallel Ant Programming Using Genetic Operators <i>Akira Hara, Jun-ichi Kushida, Souichi Tanabe and Tetsuyuki Takahama</i>
15:25-15:50	Constraint Propagation + Ant Colony Optimization for Automated School Timetabling <i>Makoto Koshino and Takahiro Otani</i>

Coffee Break

Time	Session: Evolutionary Computation (Chair: Prof. Tetsuhiro Miyahara)
16:05-16:30	Genetic Programming with Multiple Initial Populations Generated by Simulated Annealing <i>Takuya Mototsuka, Akira Hara, Jun-ichi Kushida and Tetsuyuki Takahama</i>
16:30-16:55	Island-Based Differential Evolution with Varying Subpopulation Size <i>Jun-ichi Kushida, Akira Hara, Tetsuyuki Takahama and Ayumi Kido</i>
16:55-17:20	A (μ , λ) Evolutionary and Particle Swarm Hybrid Algorithm, with an Application to Dinosaur Gait Optimization <i>Yoshiyuki Matsumura, Ayumu Kobayashi, Kiyotaka Sugiyama, Todd Pataky, Bill Sellers, Toshiyuki Yasuda and Kazuhiro Ohkura</i>

Closing Ceremony (17:30 -) (4F 404)

Technical Program: Room B (5F 504)

Time	Session: Neural Networks (Chair: Dr. Jun-ichi Kushida)
09:30-09:55	Interval-valued Differential Evolution for Evolving Neural Networks with Interval Weights and Biases <i>Hidehiko Okada</i>
09:55-10:20	Structural Optimization of Neural Network for Data Prediction Using Dimensional Compression and Tabu Search <i>Tomohiro Hayashida, Ichiro Nishizaki and Tsubasa Matsumoto</i>
10:20-10:45	Dependent Input Neuron Selection in Contradiction Resolution <i>Ryotaro Kamimura</i>

Coffee Break

Time	Session: Parallel Processing (Chair: Dr. Toshiyuki Yasuda)
10:55-11:20	Parallel Processing of Approximate Sequence Matching using Disk-based Suffix Tree on Multi-core CPU <i>Yosuke Watanuki, Keiichi Tamura, Hajime Kitakami and Yoshifumi Takahashi</i>
11:20-11:45	Solving the Wafer Probing Scheduling Problem Using Water Flow-like Algorithm <i>Chin-Chih Chang and Feng-Chia Li</i>

Lunch Time

IEEE SMC Hiroshima Chapter Lecture (in Japanese)(13:00-14:00):

Speaker: Prof. Tetsuyuki Takahama (4F 404)

Campus tour in Hiroshima City University (13:00-14:00)

Time	Session: Data Mining (Chair: Dr. Tomohiro Hayashida)
14:10-14:35	Geometric Transformation Based Multiplicative Data Perturbation For Privacy Preserving Data Mining <i>Hitesh Chhinkaniwala, Aniket Patel and Sanjay Garg</i>
14:35-15:00	Location-based Burst Detection Algorithm for Georeferenced Document Streams based on User's Moving Direction <i>Tomoki Matsui, Keiichi Tamura and Hajime Kitakami</i>

15:00-15:25	Development of automatic positioning system for bicycle saddle based on lower limb's EMG signals during pedaling motion <i>Tatsushi Tokuyasu, Shimpei Matsumoto, Shoma Kushizaki and Tomoki Kitawaki</i>
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Coffee Break

Time	Session: Image Processing (Chair: Prof. Pei-Ju Chiang)
16:05-16:30	Segmentation-based Illumination Normalization for Face Detection <i>Min Yao, Kota Aoki and Hiroshi Nagahashi</i>
16:30-16:55	Stereo vision For the Measurement of Turning Tool Size <i>Pei-Ju Chiang and Geng-Hao Ping</i>
16:55-17:20	Automatic Construction of Single Frame Super-Resolution Using Cartesian Genetic Programming <i>Yusuke Natsui and Tomoharu Nagao</i>

Closing Ceremony (17:30 -) (4F 404)

Technical Program: Room C (6F 602)

Time	Session: Business Intelligence (Chair: Prof. Keiichi Niwa)
09:30-09:55	Approach to Identifying Out-of-Control Variables in Multivariate T squared Control Chart Using AIC <i>Yasuhiko Takemoto, Rumi Tanaka and Ikuo Arizono</i>
09:55-10:20	Credit Risk Evaluation of Investment Corporation Bonds <i>Hiroshi Tsuda and Masakazu Ando</i>
10:20-10:45	An Empirical Study of Concept Drift Detection for the Prediction of TAIEX Futures <i>Hong-Che Lin and Kuo-Wei Hsu</i>

Coffee Break

Time	Session: Mobile Networking System and Application (Chair: Dr. Makoto Koshino)
10:55-11:20	A New Message Flooding Protocol for Ad-hoc Social Community Sharing Real-time Market Information <i>Tetsuya Shigeyasu and Takumi Ichimura</i>
11:20-11:45	Early Discovery of Chronic Non-attenders by Using NFC Attendance Management System <i>Takumi Ichimura and Shin Kamada</i>

Lunch Time

IEEE SMC Hiroshima Chapter Lecture (in Japanese)(13:00-14:00):

Speaker: Prof. Tetsuyuki Takahama (4F 404)

Campus tour in Hiroshima City University (13:00-14:00)

Time	Organized Session: Intelligent Applications (Chair: Prof. Kosuke Kato)
14:10-14:35	Genetic Algorithm-based Feature Selection for Decision Tree Classification And its Application to Credit Risk Analysis <i>Zhiyi Xue and Steve Chen</i>
14:35-15:00	A Method using Linguistic and Acoustic Features to Detect Inadequate Utterances in Medical Communication

	<i>Michihisa Kurisu, Kazuya Mera, Ryunosuke Wada, Yoshiaki Kurosawa and Toshiyuki Takezawa</i>
15:00-15:25	Scene Classification Using Color and Structure-based Features <i>Ken Shimazaki and Tomoharu Nagao</i>
15:25-15:50	An End-to-End Middleware Solution With Multiple Concurrent Applications Support for Wireless Body Area Networks <i>Mo Haghighi</i>

Coffee Break

Time	Session: Decision Making of Tourism (Chair: Prof. Ryo Haruna)
16:05-16:30	Emotion Orientated Recommendation System for Hiroshima Tourist by Fuzzy Petri Net <i>Takumi Ichimura and Issei Tachibana</i>
16:30-16:55	Personal Tour Planning Incorporating Standard Tour Routes and Tourist Satisfaction <i>Takashi Hasuike, Hideki Katagiri, Hiroe Tsubaki and Hiroshi Tsuda</i>
16:55-17:20	An interactive multiobjective programming approach to tour route planning problems <i>Hideki Katagiri, Takeshi Uno, Kosuke Kato, Hiroshi Tsuda and Hiroe Tsubaki</i>

Closing Ceremony (17:30 -) (4F 404)