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# Table of Contents

## M1-Rm1

### Human-Computer Interaction I

|                                                                                                                                     |    |
|-------------------------------------------------------------------------------------------------------------------------------------|----|
| A Haptic Teleoperation Study Using Wave Variables and Scaling Matrices .....                                                        | 1  |
| <i>Daniel W. Repperger, Rodney G. Roberts, Mark Alise, Carl A. Moore</i>                                                            |    |
| Omnidirectional Robotic Telepresence through Augmented Virtuality for Increased Situation Awareness in Hazardous Environments ..... | 6  |
| <i>Daniel Per Johansson, Leo J. de Vin</i>                                                                                          |    |
| Compensating Device Inertia for 6-DOF Haptic Rendering .....                                                                        | 12 |
| <i>Jilin Zhou, Francois Malric, Emil M. Petriu, Nicolas D. Georganas</i>                                                            |    |
| Algorithm Optimizations for Low-Complexity Eye Tracking .....                                                                       | 18 |
| <i>Vasily Moshnyaga, Shinji Yamamoto</i>                                                                                            |    |
| Fuzzy Virtual Impedance Controller in Human-Vehicle Interaction .....                                                               | 23 |
| <i>Shenghao Zhou, Seiji Yasunobu</i>                                                                                                |    |

## M1-Rm2

### Assistive Technology I

|                                                                                                                                                     |    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Navigation in Eight Cardinal Directions with Pseudo-Attraction Force for the Visually Impaired .....                                                | 27 |
| <i>Tomohiro Amemiya, Sugiyama Hisashi</i>                                                                                                           |    |
| Target Acquisition by a Hands-free Wireless Tilt Mouse .....                                                                                        | 33 |
| <i>Ferrol Rawson Blackmon, Michael Weeks</i>                                                                                                        |    |
| Predictive Validity of Wheelchair Driving Behavior for Fine Motor Abilities - Definition of Input Variables for an Adaptive Wheelchair System ..... | 39 |
| <i>Meike Jipp, Christian Bartolein, Essameddin Badreddin</i>                                                                                        |    |
| Towards a 2D Tactile Vocabulary for Navigation of Blind and Visually Impaired .....                                                                 | 45 |
| <i>Dimitrios Dakopoulos, Nikolaos G. Bourbakis</i>                                                                                                  |    |

|                                                                                                                            |    |
|----------------------------------------------------------------------------------------------------------------------------|----|
| New Computer Protocol with Subsensory Stimulation and Visual/Auditory Biofeedback for Balance Assessment in Amputees ..... | 52 |
| <i>Ming-Yih Lee, Kok-Soon Soon</i>                                                                                         |    |

## M1-Rm3

### Systems Safety and Security

|                                                                                                                                                         |    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Network Intrusion Detection using Fuzzy Class Association Rule Mining Based on Genetic Network Programming .....                                        | 60 |
| <i>Ci Chen, Shingo Mabu, Chuan Yue, Kaoru Shimada, Kotaro Hirasawa</i>                                                                                  |    |
| Design of a Lattice-based Access Control Scheme .....                                                                                                   | 68 |
| <i>Chia-Chu Chiang, Coskun Bayrak, Remzi Seker, Umit Topaloglu, Murat Demirer, Nasrola Samadi, Suleyman Tek, Bian Jiang, Guangxu Zhou, Xiaoran Wang</i> |    |
| Sh@re: Negotiated Audit in Social Networks .....                                                                                                        | 74 |
| <i>Alejandro Gutierrez, Apeksha Godiyal, Matt Stockton, Michael LeMay, Carl Gunter, Roy H. Campbell</i>                                                 |    |
| Keystroke-Based Authentication by Key Press Intervals as a Complementary Behavioral Biometric .....                                                     | 80 |
| <i>Shallen Daniele Giroux, Renata Wachowiak-Smolikova, Mark Paul Wachowiak</i>                                                                          |    |

## M1-Rm4

### Human-Computer Symbiosis for Information Retrieval

|                                                                                                    |     |
|----------------------------------------------------------------------------------------------------|-----|
| Adapting to the Data Explosion: Ensuring Justice for All .....                                     | 86  |
| <i>Julia L. Brickell and Arthur M. Langer</i>                                                      |     |
| The Centrality of User Modeling to High Recall with High Precision Search .....                    | 91  |
| <i>Dan Brassil, Christopher Hogan, Simon Attfield</i>                                              |     |
| Impedance Matching of Humans and Machines in High-Q Information Retrieval Systems .....            | 97  |
| <i>Robert S. Bauer, Dan Brassil, Christopher Hogan, Gina Taranto, John Seely Brown</i>             |     |
| Replication and Automation of Expert Judgments: Information Engineering in Legal E-Discovery ..... | 102 |
| <i>Bruce Hedin, Douglas W. Oard</i>                                                                |     |

|                                                             |     |
|-------------------------------------------------------------|-----|
| Human Aided Computer Assessment for Exhaustive Search ..... | 108 |
| <i>Christopher Hogan, Dan Brassil, Mitchell Marcus</i>      |     |

## M1-Rm5

### Soft Computing I

|                                                                                                                                |     |
|--------------------------------------------------------------------------------------------------------------------------------|-----|
| Self-supervised learning by information enhancement: Target-Generating and Spontaneous learning for Competitive Learning ..... | 113 |
| <i>Ryotaro Kamimura</i>                                                                                                        |     |
| An interactive evolutionary approach for content based image retrieval .....                                                   | 120 |
| <i>Francesc Josep Ferri, Miguel Arevalillo-Herraez, Salvador Moreno-Picot</i>                                                  |     |
| Design Principle of Two Mass Jumping System .....                                                                              | 126 |
| <i>Yuya Nishida, Takashi Sonoda, Kazuo Ishii</i>                                                                               |     |
| The Simulation of MRT Transfer System Based on Bus Holding Strategies with platform constraints .....                          | 131 |
| <i>Shih-Che Lo, Wei-Jie Chang, Peng-Cheng Kuo, Chun-Yun Kuo</i>                                                                |     |
| Motion Planning with Obstacle Avoidance for Kinematically Redundant Manipulators Based on Two Recurrent Neural Networks .....  | 137 |
| <i>Xiaolin Hu, Jun Wang, Bo Zhang</i>                                                                                          |     |

## M1-Rm6

### Image Processing/Pattern Recognition I

|                                                                                                    |     |
|----------------------------------------------------------------------------------------------------|-----|
| Simulating Inertial and Centripetal Forces for Segmentation of Overlapped Handwritten Digits ..... | 143 |
| <i>Carlos Alexandre Mello, Edward Roe</i>                                                          |     |
| A Filtering Algorithm for Highly Noisy Images of Brazilian ATM Bank Checks .....                   | 148 |
| <i>Carlos Alexandre Mello, Byron Bezerra, Afonso Ferreira, Juliano Rabelo</i>                      |     |
| New formula for image reconstruction from projections by the 2-D paired transformation .....       | 153 |
| <i>Artyom M Grigoryan, Nan Du</i>                                                                  |     |
| Two-view face recognition using Bayesian fusion .....                                              | 157 |
| <i>Grace Shin-Yee Tsai, Chih-Wei Tang</i>                                                          |     |

|                                    |     |
|------------------------------------|-----|
| Charged Active Contour model ..... | 163 |
| <i>Ke Lun Tang</i>                 |     |

|                                                                                       |     |
|---------------------------------------------------------------------------------------|-----|
| A comprehensive audio-visual corpus for teaching sound Persian phoneme articulation . | 169 |
| <i>Azam Bastanfard, Maryam Fazel, Alireza Abdi Kelishami, Mohammad Aghaahmadi</i>     |     |

## M1-Rm7

### Discrete Event Systems

|                                                                                                           |     |
|-----------------------------------------------------------------------------------------------------------|-----|
| Using Information and Communication Technologies in Intermodal Freight Transportation: a Case Study ..... | 175 |
| <i>Maria Pia Fanti, Valentina Boschian, Giorgio Iacobellis, Walter Ukovich</i>                            |     |

|                                                                                          |     |
|------------------------------------------------------------------------------------------|-----|
| Off-line Identification of Concurrent Discrete Event Systems Exhibiting Cyclic Behaviour | 181 |
| <i>Ana Paula Estrada-Vargas, Ernesto Lopez-Mellado, Jean-Jacques Lesage</i>              |     |

|                                                                                      |     |
|--------------------------------------------------------------------------------------|-----|
| An Enforcing Supervisor for Flexible Manufacturing Systems Using Theory of Regions . | 187 |
| <i>Yi-Sheng Huang, Mu Der Jeng</i>                                                   |     |

|                                                                                                    |     |
|----------------------------------------------------------------------------------------------------|-----|
| Design of Petri Net-based Deadlock Prevention Controllers for Flexible Manufacturing Systems ..... | 193 |
| <i>Weimin Wu, Mengchu Zhou, Guoqiang Zeng, Weijie Mao, Hongye Su, Jian Chu</i>                     |     |

|                                                                                                        |     |
|--------------------------------------------------------------------------------------------------------|-----|
| A New Class of Petri Nets for Modeling and Control of Ratio-enforced Resource Allocation Systems ..... | 199 |
| <i>Hesuan Hu, Mengchu zhou, Zhiwu Li</i>                                                               |     |

## M1-Rm8

### Computational Intelligence I

|                                                                                      |     |
|--------------------------------------------------------------------------------------|-----|
| Bio-Inspired Node Localization in Wireless Sensor Networks .....                     | 205 |
| <i>Raghavendra Venkatesh Kulkarni, Ganesh Kumar Venayagamoorthy, Maggie X. Cheng</i> |     |

|                                                                |     |
|----------------------------------------------------------------|-----|
| IPCM Separability Ratio for Supervised Feature Selection ..... | 211 |
| <i>Wing Yin Ng, Jun Wang, Daniel S. Yeung</i>                  |     |

|                                                                                          |     |
|------------------------------------------------------------------------------------------|-----|
| Ribbon-like skeletonization based on contour reconstrction on intersection regions ..... | 216 |
| <i>Zhiwu Melody Liao, S X Hu, X Q Huang, W F Chen</i>                                    |     |

|                                                                                  |     |
|----------------------------------------------------------------------------------|-----|
| Skeletonization Based on High-Level Markov Random Field .....                    | 221 |
| <i>Zhiwu Melody Liao, S X Hu, X Q Huang, W F Chen</i>                            |     |
| One Sufficient Condition for Hamiltonian Graph Using Its Spanning Subgraph ..... | 225 |
| <i>Zhiwu Melody Liao, S X Hu, X Q Huang, W F Chen</i>                            |     |

## M1-Rm9

### Human Centered Transportation System I

|                                                                                                                                       |     |
|---------------------------------------------------------------------------------------------------------------------------------------|-----|
| Evaluation of Ship Navigator's Mental Workload for Ship Handling Based on Physiological Indices .....                                 | 228 |
| <i>Koji Murai, Kousaku Hama, Laurie Stone, Yuji Hayashi</i>                                                                           |     |
| Evaluation of Marine Simulator Training Based on Heart Rate Variability .....                                                         | 233 |
| <i>Koji Murai, Sam Teel, Jim Sanders, Daniel Parrott, Larry Wade, Timothy Gervais, Katherine Rovinski, Yuji Hayashi, Laurie Stone</i> |     |
| Selection of Suitable GUI for Various Controllers Using Analytic Hierarchy Process ....                                               | 239 |
| <i>Sumie Yamada, Yuta Uesugi, Takako Nonaka, Tomohiro Hase</i>                                                                        |     |
| A Study of a Collision Avoidance Support System .....                                                                                 | 244 |
| <i>Jun Kayano, Hayama Imazu</i>                                                                                                       |     |
| Development of a Sensor System for Grasp Behavior on a Steering Wheel .....                                                           | 250 |
| <i>Takashi Imamura, Zhong Zhang, Tetsuo Miyake, MD Rizal Othman</i>                                                                   |     |

## M1-Rm10

### Type-2 Fuzzy Logic Systems and Control I

|                                                                                                                                                         |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| A Practical Approach for Design of PD and PI Like Interval Type-2 TSK Fuzzy Controllers .....                                                           | 255 |
| <i>Mohammad Biglarbegian, William Melek, Jerry M Mendel</i>                                                                                             |     |
| Solving Fuzzy Linear Programming Problems with Interval Type-2 RHS .....                                                                                | 262 |
| <i>Juan Carlos Figueroa Garcia</i>                                                                                                                      |     |
| Designing Type-2 Fuzzy Logic System Controllers via Fuzzy Lyapunov Synthesis for the Output Regulator of a Servomechanism with Nonlinear Backlash ..... | 268 |
| <i>Oscar Castillo, Nohe Cazarez, Luis Aguilar</i>                                                                                                       |     |

|                                                                                                                           |     |
|---------------------------------------------------------------------------------------------------------------------------|-----|
| Obtaining an FOU for a Word from a Single Subject by an Individual Interval Approach<br><i>Jhiin Joo, Jerry M. Mendel</i> | 274 |
|---------------------------------------------------------------------------------------------------------------------------|-----|

|                                                                                                  |     |
|--------------------------------------------------------------------------------------------------|-----|
| Uncertainty Measures for General Type-2 Fuzzy Sets .....<br><i>Daoyuan Zhai, Jerry M. Mendel</i> | 281 |
|--------------------------------------------------------------------------------------------------|-----|

## M1-Rm11

### Manufacturing Systems and Automation I

|                                                                                                                                               |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Optimal Cyclic Multiple Hoist Scheduling for Processes with Loops and Parallel Resources .....<br><i>Ralf Froehlich, Steffen C. Steneberg</i> | 287 |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----|

|                                                                                                                                         |     |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----|
| Job Batching and Scheduling for Parallel Non-Identical Machines via MILP and Petri Nets .....<br><i>Matthias Huesig, Ralf Froehlich</i> | 293 |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----|

|                                                                                                                                                               |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| An Integrated Column Generation and Lagrangian Relaxation for Flowshop Scheduling Problems .....<br><i>Nishi Tatsushi, Isoya Yukinori, Inuiguchi Masahiro</i> | 299 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|

|                                                                                                                                                                                                        |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| An Automation Agent Architecture with A Reflective World Model in Manufacturing Systems .....<br><i>Mathieu Vallee, Hermann Kaindl, Munir Merdan, Wilfried Lepuschitz, Edin Arnautovic, Pavel Vrba</i> | 305 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|

|                                                                                                             |     |
|-------------------------------------------------------------------------------------------------------------|-----|
| Simultaneous state and dead-zone parameter estimation using high-gain observers .....<br><i>Salim Ibrir</i> | 311 |
|-------------------------------------------------------------------------------------------------------------|-----|

## M1-Rm12

### Smart Sensor Networks I

|                                                                                                                           |     |
|---------------------------------------------------------------------------------------------------------------------------|-----|
| A Cluster-Based Protocol for Self-Organizing UWB Wireless Ad hoc Sensor Networks .<br><i>Hai Hung Hoang, Bing W. Kwan</i> | 317 |
|---------------------------------------------------------------------------------------------------------------------------|-----|

|                                                                                                             |     |
|-------------------------------------------------------------------------------------------------------------|-----|
| Path Loss Revisited Using Computer Simulation .....<br><i>Hung Huy Khong, Bing W. Kwan, Leonard J. Tung</i> | 323 |
|-------------------------------------------------------------------------------------------------------------|-----|

|                                                                                                                                                                                             |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| A Simple and Least Complex KV Transform Coding Technique with Low BER Performance at Low Eb/No for Multi-Tiered Applications in Power and Bandwidth Constrained MANET/Sensor Networks ..... | 329 |
| <i>Dhadesugoor R. Vaman, S.T. Koay, A. Annamalai, N. Agarwal</i>                                                                                                                            |     |
| An Emerging Technology for Improved Building Automation Control .....                                                                                                                       | 337 |
| <i>Wenqi Guo, Mengchu Zhou</i>                                                                                                                                                              |     |
| Human-Behaviour Study with Situation Lattices .....                                                                                                                                         | 343 |
| <i>Juan Ye, Simon Dobson</i>                                                                                                                                                                |     |

## M1-Rm13

### Environmental Decision Support and Visualization Systems

|                                                                                                                      |     |
|----------------------------------------------------------------------------------------------------------------------|-----|
| Impact of Increased Spatio-Temporal Radar Data Resolution on Forecaster Wind Assessments .....                       | 349 |
| <i>Don J. Rude, Ellen J. Bass, Brenda Philips</i>                                                                    |     |
| Designing Flow Visualizations for Oceanography and Meteorology using Interactive Design Space Hill Climbing .....    | 355 |
| <i>Colin Ware, Peter Mitchell, John Kelley</i>                                                                       |     |
| Interactive Visual Summarization of Multidimensional Data .....                                                      | 362 |
| <i>Sarat M. Kocherlakota, Christopher G. Healey</i>                                                                  |     |
| Group Awareness Information in Web-Based Group Decision Support System .....                                         | 370 |
| <i>Nipat Jongsawat, Wichian Premchaiswadi</i>                                                                        |     |
| A SMILE Web-based Interface for Learning the Causal Structure and Performing a Diagnosis of a Bayesian Network ..... | 376 |
| <i>Nipat Jongsawat, Wichian Premchaiswadi</i>                                                                        |     |

## M1-Rm14

### Intelligent Learning in Control Systems I

|                                                                                                           |     |
|-----------------------------------------------------------------------------------------------------------|-----|
| A Probabilistic Fuzzy Logic System: learning in the stochastic environment with incomplete dynamics ..... | 383 |
| <i>Han-Xiong Li, Zhi Liu</i>                                                                              |     |

|                                                                                                |     |
|------------------------------------------------------------------------------------------------|-----|
| Novel Direct Adaptive Fuzzy Control System Design .....                                        | 389 |
| <i>Shun-Feng Su, Yao Chu Hsueh</i>                                                             |     |
| Real-Valued Q-learning in Multi-agent Cooperation .....                                        | 395 |
| <i>Kao-Shing Hwang, Chia-Yue Lo, Kim-Joan Chen</i>                                             |     |
| Behavioral-Fusion Control Based on Reinforcement Learning .....                                | 401 |
| <i>Kao-Shing Hwang, Yu-Jen Chen, Chun-Ju Wu, Cheng-Shong Wu</i>                                |     |
| Interactive Emotion Recognition Using Support vector Machine for Human-Robot Interaction ..... | 407 |
| <i>Ching-Chih Tsai, You-Zhu Chen, Ching-Wen Liao</i>                                           |     |

## M2-Rm1

### Human-Computer Interaction II

|                                                                                                                                                               |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Vibrotactile Rendering of Head Gestures for Controlling Electric Wheelchair .....                                                                             | 413 |
| <i>Shafiq Rehman, Bisser Raytchev, Ikushi Yoda, Li Liu</i>                                                                                                    |     |
| Human Communication Network Based on the Classification Results of Personal Preferences by Using Self-Organizing Map .....                                    | 418 |
| <i>Takumi Ichimura, Azusa Yamasaki, Akira Hara, Tetsuyuki Takahama</i>                                                                                        |     |
| Filling out Learning Object Metadata considering Cultural Contextualization .....                                                                             | 424 |
| <i>David Buzatto, Junia Coutinho Anacleto, Ana Luiza Dias, Marcos Alexandre Rose Silva, Johana Maria Rosas Villena, Aparecido Fabiano Pinatti De Carvalho</i> |     |
| Adaptive Embodied Entrainment Control and Interaction Design of the First Meeting Introducer Robot .....                                                      | 430 |
| <i>Kenzaburo Miyawaki, Mutsuo Sano, Ryohei Sasama, Tomoharu Yamaguchi, Keiji Yamada</i>                                                                       |     |
| Optimal camera angles in mental imaging of three-dimensional structures from plane figures and the effects of depth cues .....                                | 436 |
| <i>Koji Kashihara</i>                                                                                                                                         |     |

## M2-Rm2

### Assistive Technology II

|                                                                             |     |
|-----------------------------------------------------------------------------|-----|
| Possibility of guiding arm movement in circle drawing .....                 | 442 |
| <i>Iwaki Toshima, Takashi Omori, Watanabe Norifumi</i>                      |     |
| A Framework for Reasoning Under Uncertainty with Temporal Constraints ..... | 448 |
| <i>Eugene Santos, Deqing Li, John Thomas Wilkinson</i>                      |     |
| Driver Alert State and Fatigue Detection by Salient Point Analysis .....    | 455 |
| <i>Miguel Torres-Torriti, Javier Jimenez-Pinto</i>                          |     |

## M2-Rm3

### User Interface Design

|                                                                                     |     |
|-------------------------------------------------------------------------------------|-----|
| Application of a Seeded Hybrid Genetic Algorithm for User Interface Design .....    | 462 |
| <i>Nicholas S. Hardman, John Colombi, Jacques David, Raymond Hill, Janet Miller</i> |     |
| User-Friendly GUI in Software Model Checking .....                                  | 468 |
| <i>Haruhiko Sato, Shoichi Yokoyama, Masahito Kurihara</i>                           |     |
| Digital Image Encryption Algorithm Based on Chaos and Improved DES .....            | 474 |
| <i>Yunpeng Zhang, Zhengjun zhai, Wei Liu, Xuan Nie, Shuiping Cao, Weidi Dai</i>     |     |
| Using Designers Effort for User Interface Evaluation .....                          | 480 |
| <i>Carl J. Mueller, Dan E. Tamir, Oleg V. Komogortsev, Liam Feldman</i>             |     |

## M2-Rm4

### Biometric systems and Bioinformatics I

|                                                                                                                                                          |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Online Signature Verification Algorithm with a User-Specific Global-Parameter Fusion Model .....                                                         | 486 |
| <i>Daigo Muramatsu, Takashi Matsumoto</i>                                                                                                                |     |
| Performance Enhancement of Smith-Waterman Algorithm Using Hybrid Model: Comparing the MPI and Hybrid Programming Paradigm on SMP Clusters .....          | 492 |
| <i>Mahdi Noorian, Hamidreza Pooshfam, Zeinab Noorian, Rosni Abdullah</i>                                                                                 |     |
| Recognition of Drug-Target Interaction Patterns using Genetic Algorithm-optimized Bayesian-regularized Neural Networks and Support Vector Machines ..... | 498 |
| <i>Michael Fernandez, Akinori Sarai, Shandar Ahmad</i>                                                                                                   |     |
| Walking Stability using Portable Acceleration Measurement System .....                                                                                   | 504 |
| <i>Yuriko Tsuruoka, Masako Tsuruoka</i>                                                                                                                  |     |

|                                                                                                       |     |
|-------------------------------------------------------------------------------------------------------|-----|
| A Fingerprint Pattern Classification Approach Based on the Coordinate Geometry of Singularities ..... | 510 |
| <i>Ishmael Sbusiso Msiza, Brain Leke-Betechuoh, Fulufhelo v. Nelwamondo, Ntsika Msimang</i>           |     |

## M2-Rm5

### Soft Computing II

|                                                                                                                           |     |
|---------------------------------------------------------------------------------------------------------------------------|-----|
| EMO-based Architectural Room Floor Planning .....                                                                         | 518 |
| <i>Makoto Inoue, Hideyuki Takagi</i>                                                                                      |     |
| Visualizing Method based on Item Sales Records and its Experimentation .....                                              | 524 |
| <i>Yoshihiro Hayashi, Hiroshi Tsuji, Ryosuke Saga</i>                                                                     |     |
| Robust Feature Extractions from Geometric Data using Geometric Algebra .....                                              | 529 |
| <i>Minh Tuan Pham, Tomohiro Yoshikawa, Takeshi Furuhashi, Kanta Tachibana</i>                                             |     |
| Improving Generalization of Radial Basis Function Network with Adaptive Multi-Objective Particle Swarm Optimization ..... | 534 |
| <i>Sultan Noman Qasem, Siti Mariyam Shamsuddin</i>                                                                        |     |
| Fast Document Clustering Based on Weighted Comparative Advantage .....                                                    | 541 |
| <i>Qiangfu Zhao, Jie Ji, Tony Y.T. Chan</i>                                                                               |     |

## M2-Rm6

### Image Processing/Pattern Recognition II

|                                                                                             |     |
|---------------------------------------------------------------------------------------------|-----|
| Mixed Fourier transforms and image encryption .....                                         | 547 |
| <i>Artyom M. Grigoryan, Sree Devineni, Nan Du</i>                                           |     |
| An Automated Change Detection Approach for Mine Recognition Using Sidescan Sonar Data ..... | 553 |
| <i>Shuang Wei, Henry Leung, Vincent Myers</i>                                               |     |
| Linear-Projection-Based Classification of Human Postures in Time-of-Flight Data .....       | 559 |
| <i>Folker Wientapper, Katrin Ahrens, Harald Wuest, Ulrich Bockholt</i>                      |     |
| Fast Signal-Induced Transforms in Image Enhancement .....                                   | 565 |
| <i>Artyom M. Grigoryan, Khalil Naghdali, Ranjith Raghunath</i>                              |     |

|                                                                                          |     |
|------------------------------------------------------------------------------------------|-----|
| Image Restoration of Warped Complex Chinese Documents Based on Text Boundary Lines ..... | 571 |
| <i>Hong Liu, Runwei Ding</i>                                                             |     |

## M2-Rm7

### Evolutionary Computation I

|                                                                                                                                   |     |
|-----------------------------------------------------------------------------------------------------------------------------------|-----|
| Evolutionary Algorithm Sandbox: A Web-Based Graphical User Interface for Evolutionary Algorithms .....                            | 577 |
| <i>Brent George Gardner, Dan Simon</i>                                                                                            |     |
| A Study on Energy Consumption of Elevator Group Supervisory Control Systems using Genetic Network Programming .....               | 583 |
| <i>Lu Yu, Shingo Mabu, Tiantian Zhang, Kotaro Hirasawa, Tsuyoshi Ueno</i>                                                         |     |
| Improving Coordination via Emergent Communication in Cooperative Multiagent Systems: A Genetic Network Programming Approach ..... | 589 |
| <i>Tavakoli Naeini Armin, Ghaziasgar Mehran</i>                                                                                   |     |
| Constructions of Equiangular Tight Frames with Genetic Algorithms .....                                                           | 595 |
| <i>Jason C. Isaacs, Rodney Roberts</i>                                                                                            |     |
| An Efficient Image Pattern Recognition System Using an Evolutionary Search Strategy                                               | 599 |
| <i>Pei Fang Bess Guo, Prabir Bhattahcarya, Nawwaf Khama</i>                                                                       |     |
| A Multi-inner-world Genetic Algorithm using Multiple Heuristics to Optimize Delivery Schedule .....                               | 605 |
| <i>Yoshitaka Sakurai, Setsuo Tsuruta, Takashi Onoyama, Sen Kubota</i>                                                             |     |

## M2-Rm8

### Computational Intelligence II

|                                                                                               |     |
|-----------------------------------------------------------------------------------------------|-----|
| A Bilevel Optimization Model and a PSO-based Algorithm in Day-ahead Electricity Markets ..... | 611 |
| <i>Guangquan Zhang, Jie Lu, Ya Gao, Guoli Zhang</i>                                           |     |
| A Hybrid Knowledge-based Prediction Method for Avian Influenza Early Warning .....            | 617 |
| <i>Guangquan Zhang, Jie Zhang, Jie Lu</i>                                                     |     |

|                                                                                |     |
|--------------------------------------------------------------------------------|-----|
| A Novel Dynamic Fusion Method Using Localized Generalization Error Model ..... | 623 |
| <i>Daniel S. Yeung, Patrick P. K. Chan</i>                                     |     |
| An Improved Sample Selection Algorithm in Fuzzy Decision Tree Induction .....  | 629 |
| <i>Ling-Cai Dong, Dan Wang, Xizhao Wang</i>                                    |     |
| Robust Semantic Concept Detection in Large Video Collections .....             | 635 |
| <i>Jialie Shen, Dacheng Tao, Xuelong Li</i>                                    |     |

## **M2-Rm9**

### **Human Centered Transportation System II**

|                                                                                                                                   |     |
|-----------------------------------------------------------------------------------------------------------------------------------|-----|
| A Comparative Assessment of One's Own Age from Facial Images of Others: Two Case Studies for the Americans and the Japanese ..... | 639 |
| <i>Yasuhiro Azuma, Mayuka Nishimoto, Miyamoto Naoyuki, Takashi X. Fujisawa, Noriko Nagata, Akio Kosaka</i>                        |     |
| Effects of Overlaid Navigational Information on Seascape on Ship Crew Performance ..                                              | 645 |
| <i>Kenji Yoshimura, Kenjiro Hikida, Nobuo Mitomo, Junji Fukuto</i>                                                                |     |
| Modeling Driver Operation Behavior by Linear Prediction Analysis and Auto associative Neural Network .....                        | 649 |
| <i>Othman Md Rizal, Zhong Zhang, Takashi Imamura, Tetsuo Miyake</i>                                                               |     |
| A Study on Berth Maneuvering Using Ship Handling Simulator .....                                                                  | 654 |
| <i>Tadatsugi Okazaki, Jun Kayano, Fumitaka Higano</i>                                                                             |     |

## **M2-Rm10**

### **Fuzzy Logic Systems and Control II**

|                                                                                                   |     |
|---------------------------------------------------------------------------------------------------|-----|
| Uncertainty Prediction for Tool Wear Condition Using Type-2 TSK Fuzzy Approach ..                 | 660 |
| <i>Qun Ren, Luc Baron, Marek Balazinski</i>                                                       |     |
| An Evolutive Interval Type-2 TSK Fuzzy Logic System for Volatile Time Series Identification ..... | 666 |
| <i>Juan Carlos Figueroa Garcia</i>                                                                |     |
| Creating and visualizing fuzzy document classification .....                                      | 672 |
| <i>Judith Gelernter, Dong Cao, Raymond Lu, Eugene Fink, Jaime G. Carbonell</i>                    |     |

|                                                                       |     |
|-----------------------------------------------------------------------|-----|
| Variable-Geometry Clustering and Its Optimization .....               | 680 |
| <i>Adam Pedrycz, Fangyan Dong, Kaoru Hirota</i>                       |     |
| On the Equivalence of Single Input Type Fuzzy Inference Methods ..... | 686 |
| <i>Hirosato Seki, Masaharu Mizumoto</i>                               |     |

## **M2-Rm11**

### **Manufacturing Systems and Automation II**

|                                                                                                                                     |     |
|-------------------------------------------------------------------------------------------------------------------------------------|-----|
| A Modeling and Aggregation Approach for Analyzing Resilience of Manufacturing Enterprises .....                                     | 692 |
| <i>Yao Hu, Jingshan Li, Lawrence E. Holloway</i>                                                                                    |     |
| An Adaptive Genetic Algorithm for solving the Single Machine Scheduling Problem with Earliness .....                                | 698 |
| <i>Fabio Fernandes Ribeiro, Marcone Jamilson Freitas Souza, Sergio Ricardo Souza</i>                                                |     |
| Modeling Strategy by Adaptive Genetic Algorithm for Production Reactive Scheduling with Simultaneous use of Machines and AGVs ..... | 704 |
| <i>Orides Morandin Jr, Edilson R. R. Kato, Danilo Sipoli Sanches, Bruno Drugowick Muniz</i>                                         |     |
| Modeling and optimal control of automated trolleys .....                                                                            | 710 |
| <i>Jian Xu, Qijun Chen</i>                                                                                                          |     |

## **M2-Rm12**

### **Smart Sensor Networks II**

|                                                                                                                      |     |
|----------------------------------------------------------------------------------------------------------------------|-----|
| The Design of Wireless Sleep EEG Measurement System With Asynchronous Pervasive Sensing .....                        | 714 |
| <i>Ming-Feng Wu, Chih-Yu Wen</i>                                                                                     |     |
| Precise Positioning with Wireless Sensor Nodes: Monitoring Natural Hazards in All Terrains .....                     | 722 |
| <i>Joshua Douglas Kenney, Donald Poole, Gregory Willden, Ben Abbott, Alan Morris, Ronald McGinnis, David Ferrill</i> |     |
| A Node Localization Scheme for Zigbee-based Sensor Networks .....                                                    | 728 |
| <i>Ernesto Navarro-Alvarez, Mario Siller</i>                                                                         |     |

|                                                                                  |     |
|----------------------------------------------------------------------------------|-----|
| A big picture on localization algorithms considering sensor logic location ..... | 734 |
| <i>Salvador Jauregui, Mario Siller</i>                                           |     |

|                                                                         |     |
|-------------------------------------------------------------------------|-----|
| A New Distributed Coverage Algorithm Based on Hexagonal Formation ..... | 740 |
| <i>Ahmad Pourshoghi, Heydar Ali Talebi</i>                              |     |

## M2-Rm13

### Grey Systems I

|                                                                                                      |     |
|------------------------------------------------------------------------------------------------------|-----|
| Construction of New Weakening Buffer Operators Based on New Information and Their Applications ..... | 745 |
| <i>Yao-Guo Dang, Xue-mei Li, Chuanmin Mi</i>                                                         |     |

|                                                                         |     |
|-------------------------------------------------------------------------|-----|
| On Positioned Solution of Linear Programming with Grey Parameters ..... | 751 |
| <i>Si-Feng Liu, Yaoguo Dang, Jeffrey Forrest</i>                        |     |

|                                                                                                                                      |     |
|--------------------------------------------------------------------------------------------------------------------------------------|-----|
| Concepts of Broad Class Ratio Dispersion and Broad Smooth Degree for Nonhomogeneous Exponential Sequence and Their Application ..... | 757 |
| <i>Yong Wei, Dahong Hu</i>                                                                                                           |     |

|                                                                                                                                       |     |
|---------------------------------------------------------------------------------------------------------------------------------------|-----|
| Study on the possibility degree of the optimal solution of grey dynamic programming model base on standard interval grey number ..... | 762 |
| <i>Hongxing Shi, Hongyun Du, Sifeng Liu, Chun Xu</i>                                                                                  |     |

|                                                                     |     |
|---------------------------------------------------------------------|-----|
| The Evaluation of Liver function via Grey Relational Analysis ..... | 767 |
| <i>Kun-Li Wen, Hsiao-Ying Chen, Jee-Ray Wang, Kuan-Ying Lu</i>      |     |

## M2-Rm14

### Intelligent Learning in Control Systems II

|                                                                                               |     |
|-----------------------------------------------------------------------------------------------|-----|
| Reinforcement Self-Organizing Interval Type-2 Fuzzy System with Ant Colony Optimization ..... | 771 |
| <i>Chia-Feng Juang, Chia Hung Hsu, Chia-Feng Chuang</i>                                       |     |

|                                                                                   |     |
|-----------------------------------------------------------------------------------|-----|
| CMAC-Based Compensator for Limiting Bound Required in Supervisory Control Systems | 777 |
| <i>Ted Tao, Chao-Peng Wei</i>                                                     |     |

|                                                                |     |
|----------------------------------------------------------------|-----|
| A Spatio-Temporal Fuzzy Logic System for Process Control ..... | 783 |
| <i>Han-Xiong Li, Xiao-Gang Duan</i>                            |     |

|                                                                              |     |
|------------------------------------------------------------------------------|-----|
| A Case-Based Service Request Interpretation Approach for Digital Homes ..... | 789 |
| <i>Chiung-Hon Lee, Alan Liu</i>                                              |     |

|                                                          |     |
|----------------------------------------------------------|-----|
| Desiging Robot Services with Ontology and Learning ..... | 795 |
| <i>Alan Liu, Chiung-Hon Lee</i>                          |     |

## **M3-Rm1**

### **Human-Computer Interaction III**

|                                                                                                                                                                                        |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Web Collaboration Motivated by Colors Emotionally based on Common Sense .....                                                                                                          | 801 |
| <i>Ana Luiza Dias, Junia Coutinho Anacleto, Rosangela Aparecida Dellosso Penteado, Luciana Martha Silveira, Marcos Alexandre Rose Silva, David Buzatto, Johana Maria Rosas Villena</i> |     |

|                                               |     |
|-----------------------------------------------|-----|
| Optical Touch Screen with Virtual Force ..... | 807 |
| <i>Hong Zhang</i>                             |     |

|                                                                             |     |
|-----------------------------------------------------------------------------|-----|
| Usability Taxonomy and Context-of-Use Taxonomy for Usability Analysis ..... | 812 |
| <i>Eduardo Mosqueira-Rey, David Alonso-Rios, Vicente Moret-Bonillo</i>      |     |

|                                                                    |     |
|--------------------------------------------------------------------|-----|
| Six-Digit Stroke-based Chinese Input Method .....                  | 818 |
| <i>Lai-Man Po, Chi-Kwan Wong, Yiu-Ki Au, Ka-Ho Ng, Ka-Man Wong</i> |     |

|                                                                                                                                |     |
|--------------------------------------------------------------------------------------------------------------------------------|-----|
| Benefit and evaluation of interactive 3D process data visualization in operator training of plant manufacturing industry ..... | 824 |
| <i>Dorothea Pantforder, Birgit Vogel-Heuser</i>                                                                                |     |

|                                                                                   |     |
|-----------------------------------------------------------------------------------|-----|
| Motion Planning for Human-Robot Interaction Based on Stereo Vision and SIFT ..... | 830 |
| <i>Hong Liu, Jie Zhou</i>                                                         |     |

## **M3-Rm2**

### **Human-Machine Cooperation and Systems I**

|                                                                             |     |
|-----------------------------------------------------------------------------|-----|
| Haptic Interface in UAV Tele-operation using Force-stiffness Feedback ..... | 835 |
| <i>Thanh Mung Lam, Max Mulder, Marinus Maria Van Paassen</i>                |     |

|                                                                                  |     |
|----------------------------------------------------------------------------------|-----|
| Towards Workflow Acquisition of Assembly Skills using Hidden Markov Models ..... | 841 |
| <i>Sabine Webel, Yana Staikova, Ulrich Bockholt</i>                              |     |

|                                                                                                                  |     |
|------------------------------------------------------------------------------------------------------------------|-----|
| Real-Time Upper Limb Motion Prediction from noninvasive biosignals for physical Human-Machine Interactions ..... | 847 |
| <i>Suncheol Kwon, Jung Kim</i>                                                                                   |     |
| Modeling and evaluation of harbor crane work .....                                                               | 853 |
| <i>Samuel Aulanko, Kalevi Tervo</i>                                                                              |     |
| Motion Analysis by Experiment and Simulation for Riding Bicycles with Children .....                             | 859 |
| <i>Shunsuke Matsuzawa, Hirokazu Ohno, Masami Iwase, Teruyoshi Sadahiro, Shoshiro Hatakeyama</i>                  |     |

### **M3-Rm3**

#### **Virtual and Augmented Reality Systems**

|                                                                                                                                                      |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| A Monocular Video See-through Head Mounted Display for Interactive Support System - Instruction of 3-dimensional Position, Posture and Speed - ..... | 865 |
| <i>Kazuyo Iwamoto</i>                                                                                                                                |     |
| Advanced 3D Localization by Fusing Measurements from GPS, Inertial and Vision Sensors .....                                                          | 871 |
| <i>Fakhreddine Ababsa</i>                                                                                                                            |     |
| Fusing Multiple Sensors Information into Mixed Reality-based User Interface for Robot Teleoperation .....                                            | 876 |
| <i>Jie Zhu, Xiangyu Wang, Michael Rosenman</i>                                                                                                       |     |
| Robust Camera Egomotion Estimation from 3D Straight Line-Based Environment model                                                                     | 882 |
| <i>Fakhreddine Ababsa</i>                                                                                                                            |     |
| Quality of Experience for Adaptation in Augmented Reality .....                                                                                      | 888 |
| <i>Damien Perritaz, Christophe Salzmänn, Denis Gillet</i>                                                                                            |     |

### **M3-Rm4**

#### **Biometric Systems and Bioinformatics II**

|                                                                      |     |
|----------------------------------------------------------------------|-----|
| Analysis of Factors Affecting Improvement of Walking Stability ..... | 894 |
| <i>Masako Tsuruoka, Yuriko Tsuruoka</i>                              |     |

|                                                                                                                    |     |
|--------------------------------------------------------------------------------------------------------------------|-----|
| A Scooping Simulation Framework for Artificial Cervical Disc Replacement Surgery ...                               | 900 |
| <i>Sinan Kockara, Emre Ermisoglu, Fatih Sen, Tansel Halic, Coskun Bayrak, Richard Rowe</i>                         |     |
| Pulmonary Nodule Classification Aided by Clustering .....                                                          | 906 |
| <i>S. L. A. Lee, Abbas Z. Kouzani, Gulisong Nasierding, E. J. Hu</i>                                               |     |
| Support Vector Classification for Pathological Prostate Images Based on Texture Features of Multi-Categories ..... | 912 |
| <i>Cheng-Hsiung Lee, Whei Po Huang, Phen-Lan Lin</i>                                                               |     |
| An Effective Multi-Biometrics Solution for Embedded Device .....                                                   | 917 |
| <i>Jingyan Wang, Yongping Li, Ping Liang, Guohui Zhang, Xinyu Ao</i>                                               |     |

### M3-Rm5

#### Soft Computing III

|                                                                                                                                   |     |
|-----------------------------------------------------------------------------------------------------------------------------------|-----|
| Restarting Multi-type Particle Swarm Optimization Using an Adaptive Selection of Particle Type .....                              | 923 |
| <i>Keiji Tatsumi, Takashi Yukami, Tetsuzo Tanino</i>                                                                              |     |
| The Intelligent Control based on Perceiving-Acting Cycle by using 3D-range camera ...                                             | 929 |
| <i>Hiroyuki Masuta, Naoyuki Kubota</i>                                                                                            |     |
| Interval type-2 fuzzy logic system to simulate the environment resources stochasticity inducing the population growth shape ..... | 935 |
| <i>Oscar Castillo, Cecilia Leal-Ramirez, Patricia Melin, Antonio Rodriguez</i>                                                    |     |
| An Evolutional Optimization Algorithm to Provide Individual Illuminance in Workplaces                                             | 941 |
| <i>Shingo Tanaka, Mitsunori Miki, Tomoyuki Hiroyasu, Mitsuharu Yoshikata</i>                                                      |     |
| Induction of Compact Neural Network Trees through Centroid Based Dimensionality Reduction .....                                   | 948 |
| <i>Hiroto Hayashi, Qiangfu Zhao</i>                                                                                               |     |

### M3-Rm6

#### Image Processing/Pattern Recognition III

|                                                       |     |
|-------------------------------------------------------|-----|
| Elliptic Discrete Fourier Transforms of Type II ..... | 954 |
| <i>Artyom M. Grigoryan</i>                            |     |

|                                                                                                                |     |
|----------------------------------------------------------------------------------------------------------------|-----|
| Video Monitoring of Slope Failure Using Spatiotemporal Gabor Filtering .....                                   | 960 |
| <i>Ken Okamoto, Toshio Watanabe, Akitoshi Hanazawa, Takashi Morie, Hiroshi Ban, Yuji Maeda</i>                 |     |
| A Novel Region based Image Fusion Method using Highboost Filtering .....                                       | 966 |
| <i>Tanish Hemalbhai Zaveri, Mukesh Zaveri</i>                                                                  |     |
| A Fast Region-Based Image Segmentation Based on Least Square Method .....                                      | 972 |
| <i>Gang Chen, Tai Hu, Xiaoyong Guo, Xin Meng</i>                                                               |     |
| Object Tracking Based on the Combination of Learning and Cascade Particle Filter ...                           | 978 |
| <i>Hanjie Gong, Cuihua Li, Pingyang Dai, Yi Xie</i>                                                            |     |
| A Method to Restore Chinese Warped Document Images Based on Binding Characters and Building Curved Lines ..... | 984 |
| <i>Hong Liu, Ye Lu</i>                                                                                         |     |

## **M3-Rm7**

### **Evolutionary Computation II**

|                                                                                                              |      |
|--------------------------------------------------------------------------------------------------------------|------|
| Population Distributions in Biogeography-Based Optimization Algorithms with Elitism                          | 991  |
| <i>Dan Simon, Mehmet Ergezer, Dawei Du</i>                                                                   |      |
| Biogeography-Based Optimization Combined with Evolutionary Strategy and Immigration Refusal .....            | 997  |
| <i>Dawei Du, Dan Simon, Mehmet Ergezer</i>                                                                   |      |
| Biogeography-Based Optimization and the Solution of the Power Flow Problem .....                             | 1003 |
| <i>Richard Allen Rarick, Dan Simon, F. Eugenio Villaseca, Bharat Vyakaranam</i>                              |      |
| Oppositional Biogeography-Based Optimization .....                                                           | 1009 |
| <i>Mehmet Ergezer, Dan Simon, Dawei Du</i>                                                                   |      |
| Genetic Tuning for Improving Wang and Mendel's Fuzzy Database .....                                          | 1015 |
| <i>Edilson R. R. Kato, Orides Morandin Jr., Mayra Sgavioli, Bruno Drugowick Muniz</i>                        |      |
| Backward Time Related Association Rule mining with Database Rearrangement in Traffic Volume Prediction ..... | 1021 |
| <i>Huiyu Zhou, Mabu Shingo, Shimada Kaoru, Kotaro Hirasawa</i>                                               |      |

## **M3-Rm8**

### **Fuzzy Control Systems and Applications**

|                                                                                                                                                         |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Permanent Magnet Linear Synchronous Motor Drive Design Based on Sliding-Mode Control and Fuzzy Deadzone Estimation .....                                | 1027 |
| <i>Ming-Shyan Wang, Ying-Shieh Kung, Cheng-Yi Chiang, Yi-Ci Wang</i>                                                                                    |      |
| LMI-Based H-infinite State-Feedback Control for T-S Time-Delay Discrete Fuzzy Bilinear System .....                                                     | 1033 |
| <i>Shun-Hung Tsai, Ming-Ying Hsiao, Tzuu-Hseng S. Li, Kai-Shiuan Shih, Chan-Hong Chao Chao, Chi-Hua Liu</i>                                             |      |
| FPGA-Based Fuzzy PK Controller and Image Processing System for Small-Sized Humanoid Robot .....                                                         | 1039 |
| <i>Yu-Te Su, Chun-Yang Hu, Tzuu-Hseng S. Li</i>                                                                                                         |      |
| The Design of Internal Type-2 Fuzzy Kinematic Control and Interval Type-2 Fuzzy Terminal Sliding-Mode Dynamic Control of the Wheeled Mobile Robot ..... | 1045 |
| <i>Ming-Ying Hsiao, Shun-Hung Tsai, Tzuu-Hseng S. Li, Kai-Shiuan Shih, Chan-Hong Chao, Chi-Hua Liu</i>                                                  |      |
| Design of Observer-Based Integral Adaptive Fuzzy Sliding-Mode Controllers for a Class of Uncertain Nonlinear Systems .....                              | 1051 |
| <i>Kai-Shiuan Shih, Tzuu-Hseng S. Li</i>                                                                                                                |      |

## **M3-Rm9**

### **Systems Engineering and Sustainability I**

|                                                                                                                                                             |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Corporate Sustainability Performance Measurement: Lessons from System of Systems Engineering .....                                                          | 1057 |
| <i>Cory Searcy</i>                                                                                                                                          |      |
| System-of-Systems Iso-performance Search to Inform Multi-actor Policymaking to Reduce Aviation Life Cycle Carbon Emissions .....                            | 1061 |
| <i>Datu Buyung Agusdinata, Daniel DeLaurentis</i>                                                                                                           |      |
| Information Systems and Social Legitimacy: Scientific Visualization of Water Quality ..                                                                     | 1067 |
| <i>Ibrahim Demir, Feng Jiang, Rodrigo Villarroel Walker, Amanda Parker, M Bruce Beck</i>                                                                    |      |
| Identifying the potential for Failure of Businesses in the Technology, Pharmaceutical and Banking Sectors using Kernel-based Machine Learning Methods ..... | 1073 |
| <i>Yashodhan Rajiv Athavale, Aziz Guergachi, Pouyan Hosseinizadeh, Sridhar Krishnan</i>                                                                     |      |

|                                                              |      |
|--------------------------------------------------------------|------|
| Predicting System Collapse: Two Theoretical Models .....     | 1078 |
| <i>Pouyan Hosseinizadeh, Aziz Guergachi, Vanessa Magness</i> |      |

## M3-Rm10

### Intelligent Computing in Medical / Health Care Systems I

|                                                                                                                      |      |
|----------------------------------------------------------------------------------------------------------------------|------|
| Multi-Level Reconfiguration in the DANAH Assistive System .....                                                      | 1084 |
| <i>Said Lankri, Pascal Berruet, Jean-Luc Philippe</i>                                                                |      |
| Real Time Autonomic Nervous System Display with Air Cushion Sensor while Seated .                                    | 1090 |
| <i>Kenta Yamamoto, Naoki Tsuchiya, Hiroshi Nakajima, Syoji Kobashi, Yutaka Hata</i>                                  |      |
| Trans-skull Imaging System by Ultrasonic Array Probe .....                                                           | 1096 |
| <i>Genta Hiramatsu, Seturo Imawaki, Yuri T Kitamura, Toshio Yanagida, Syoji Kobashi, Yutaka Hata, Yuichiro Ikeda</i> |      |
| Brain Shape Homologous Modeling Using Sulcal-Distribution Index in MR Images .....                                   | 1102 |
| <i>Kosuke Yamaguchi, Syoji Kobashi, Ikuko Mohri, Seturo Imawaki, Masako Taniike, Yutaka Hata</i>                     |      |
| 2-D/3-D Image Registration of Implanted Knee DR Images with Kalman Filter .....                                      | 1107 |
| <i>Yusuke Nakajima, Syoji Kobashi, Yohei Tsumori, Nao Shibanuma, Seturo Imawaki, Shinichi Yoshiya, Yutaka Hata</i>   |      |
| Progress Away From Evidence based Medicine to Discovery of Dynamic Principles of Disease and its Treatment .....     | 1113 |
| <i>Cathy M. Helgason, Thomas H. Jobe</i>                                                                             |      |

## M3-Rm11

### Conflict Resolution I

|                                                                                                                                        |      |
|----------------------------------------------------------------------------------------------------------------------------------------|------|
| Economic Impacts of Disasters Taking into Account the Costs of Substitution of Intermediate Goods .....                                | 1116 |
| <i>Kazuyoshi Nakano, Hirokazu Tatano</i>                                                                                               |      |
| Risk Management of Liability Uncertainties to Facilitate Brownfield Redevelopment: Comparing the Situation of Canada with the US ..... | 1122 |
| <i>Lizhong Wang, Liping Fang, Keith W. Hipel</i>                                                                                       |      |

|                                                                                                                                  |      |
|----------------------------------------------------------------------------------------------------------------------------------|------|
| Interrelationships among Attitude-Based and Conventional Stability Concepts within the Graph Model for Conflict Resolution ..... | 1130 |
| <i>Takehiro Inohara, Keith W. Hipel</i>                                                                                          |      |
| Alberta Oil Sands Development Conflict .....                                                                                     | 1136 |
| <i>Michele Heng, Keith W. Hipel, Liping Fang</i>                                                                                 |      |
| Development of a Decision System to Aid Project Managers in Determining Information Technology Project Status .....              | 1142 |
| <i>Anthony Paul Barnes, Robert J Hammell</i>                                                                                     |      |

## **M3-Rm12**

### **Intelligent Internet Systems I**

|                                                                                                   |      |
|---------------------------------------------------------------------------------------------------|------|
| Development of a Case-Rule-Based Reasoning Engine for the Double Agent Convoying Simulation ..... | 1148 |
| <i>Makoto Katoh, Imura Natsuki</i>                                                                |      |
| Using Question Classification to Model User Intentions of Different Levels .....                  | 1153 |
| <i>Yaoyun Zhang, Xuan Wang, Xiaolong Wang, Shixi Fan, Daoxu Zhang</i>                             |      |
| Extracting Chinese Question-Answer Pairs from Online Forums .....                                 | 1159 |
| <i>Baoxun Wang, Bingquan Liu, Chengjie Sun, Xiaolong Wang, Lin Sun</i>                            |      |
| Improved Classification Based on Predictive Association Rules .....                               | 1165 |
| <i>Zhixin Hao, Xuan Wang, Lin Yao, Yaoyun Zhang</i>                                               |      |
| A review of classification methods for network vulnerability .....                                | 1171 |
| <i>Shuyuan Jin, Yong Wang, Xiang Gui, Xiaochun Yun</i>                                            |      |

## **M3-Rm13**

### **Grey Systems II**

|                                                                     |      |
|---------------------------------------------------------------------|------|
| A new grey-rough set model based on interval-valued grey sets ..... | 1176 |
| <i>Shunxiang Wu, Lihua Lin, Qinquan Gao</i>                         |      |
| Discrete Grey Model of Systematic Prediction .....                  | 1183 |
| <i>Xinhai Kong, Yong Wei</i>                                        |      |
| A Note On the Sequence of Weakening Buffer Operator .....           | 1187 |
| <i>Wu Zhengpeng, Si-Feng Liu, Chuanmin Mi</i>                       |      |

|                                                                                                                         |      |
|-------------------------------------------------------------------------------------------------------------------------|------|
| On Evolution Trend of R&D Input and Scientific and Technical Input in Jiangsu Province<br><i>DeJin Song, Sifeng Liu</i> | 1191 |
|-------------------------------------------------------------------------------------------------------------------------|------|

### **M3-Rm14**

#### **Intelligent RFID Systems**

|                                                                                                                                                                |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Develop Patient Monitoring and Support System Using Mobile Communication and Intelligent Reasoning .....<br><i>Amy J.C. Trappey, Charles Trappey, C.S. Liu</i> | 1195 |
| Optimal RFID Networks Scheduling using Genetic Algorithm and Swarm Intelligence ..<br><i>Chui-Yu Chiu, K.Y. Chen, Cheng-Hsin Ke</i>                            | 1201 |
| Applying RFID Hand-Held Device for Factory Equipment Diagnosis .....<br><i>Kai-Ying Chen, Yu-Huei Liao, Fang-Chih Tien</i>                                     | 1209 |
| Distributed Intelligent RFID Systems .....<br><i>William A. Gruver, Dilip B. Kotak</i>                                                                         | 1214 |
| A framework for FSM based multi-model approach to interconnected components network<br><i>Babiga Birregah, Kondo Hloindo Adjallah</i>                          | 1219 |

### **M4-Rm1**

#### **Human-Computer Interaction IV**

|                                                                                                                                                                                     |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| An HTML analyzer for the study of web usability .....<br><i>David Alonso-Rios, Ivan Luis-Vazquez, Eduardo Mosqueira-Rey, Vicente Moret-Bonillo, B. Baldonado del Rio</i>            | 1224 |
| A Game to Support Childrens? Expression and Socialization Considering their Cultural Background .....<br><i>Marcos Alexandre Rose Silva, Junia Coutinho Anacleto, David Buzatto</i> | 1230 |
| Towards a Method For Evaluating Naturalness in Conversational Dialog Systems .....<br><i>Victor Chou Hung, Miguel Elvir, Avelino J. Gonzalez, Ronald DeMara</i>                     | 1236 |
| Context Aware Personal Agent for Spiritual Exploration .....<br><i>Michael R. Neal, d'Armond L Speers</i>                                                                           | 1242 |

|                                                                                                                                        |      |
|----------------------------------------------------------------------------------------------------------------------------------------|------|
| Using Liquid Lenses to Extend the Operating Range of a Remote Gaze Tracking System                                                     | 1250 |
| <i>Tony Poitschke, Bardins Stanislavs, Erwin Bay, Klaus Bartl, Florian Laquai, Johannes Vockeroth, Gerhard Rigoll, Erich Schneider</i> |      |

|                                                          |      |
|----------------------------------------------------------|------|
| A Novel Approach To Video-Based Pupil Tracking .....     | 1255 |
| <i>Nishant Kumar, Erich Schneider, Stefan Kohlbecher</i> |      |

## M4-Rm2

### Human-Machine Cooperation and Systems II

|                                                                             |      |
|-----------------------------------------------------------------------------|------|
| Reduction of Complexity for the Analysis of Human-Machine-Interaction ..... | 1263 |
| <i>Dennis Gamrad, Dirk Soeffker</i>                                         |      |

|                                                                                                   |      |
|---------------------------------------------------------------------------------------------------|------|
| Human Teams for Large Scale Multirobot Control .....                                              | 1269 |
| <i>Michael Lewis, Huadong Wang, Shih Yi Chien, Prasanna Velagapudi, Paul Scerri, Katia Sycara</i> |      |

|                                                                  |      |
|------------------------------------------------------------------|------|
| Resource Management System for Computational Grid Building ..... | 1275 |
| <i>Goran Martinovic</i>                                          |      |

|                                                                                                  |      |
|--------------------------------------------------------------------------------------------------|------|
| Visual Tracking Algorithm Based on CAMSHIFT and Multi-cue Fusion for Human Motion Analysis ..... | 1280 |
| <i>Yang Ge, Hong Liu</i>                                                                         |      |

|                                                                                                               |      |
|---------------------------------------------------------------------------------------------------------------|------|
| A Modified Cross Power-Spectrum Phase Method Based on Microphone Array for Acoustic Source Localization ..... | 1286 |
| <i>Hong Liu, Miao Shen</i>                                                                                    |      |

## M4-Rm3

### Web Intelligence and Interaction

|                                                                                    |      |
|------------------------------------------------------------------------------------|------|
| Query Recommendation and Its Usefulness Evaluation on Mobile Search Engine .....   | 1292 |
| <i>Shunkai Fu, Bingfeng Pi, Michel Desmarais, Ying Zhou, Weilei Wang, Han Song</i> |      |

|                                                           |      |
|-----------------------------------------------------------|------|
| Ontology Granularity and Rough Equality of Concepts ..... | 1298 |
| <i>Lawrence J. Mazlack, Pavel Klinov</i>                  |      |

|                                                                                                          |      |
|----------------------------------------------------------------------------------------------------------|------|
| Providing Adaptive Support in Computer Supported Collaboration Environments .....                        | 1304 |
| <i>Professor Kinshuk, Yoshitaka Sakurai, Kouhei Takada, Sabine Graf, Ardah Zarypolla, Setsuo Tsuruta</i> |      |

|                                                                                                           |      |
|-----------------------------------------------------------------------------------------------------------|------|
| Cognitive Agents for Understanding the Complexities Involved in Web-based Knowledge-gathering Tasks ..... | 1310 |
| <i>Balaji Rajendran, Iyakutti K.</i>                                                                      |      |

#### M4-Rm4

TBD

#### M4-Rm5

#### Soft Computing IV

|                                                                              |      |
|------------------------------------------------------------------------------|------|
| Multiobjective Random Fuzzy Portfolio Selection Problems based on CAPM ..... | 1316 |
| <i>Takashi Hasuike, Hideki Katagiri, Hiroaki Ishii</i>                       |      |

|                                                                       |      |
|-----------------------------------------------------------------------|------|
| Tabu Split and Merge for the Simplification of Polygonal Curves ..... | 1322 |
| <i>Pierre-Francois Marteau, Gildas Menier</i>                         |      |

|                                                                                                                         |      |
|-------------------------------------------------------------------------------------------------------------------------|------|
| Construction of Image Feature Extractors Based on Multi-objective Genetic Programming with Redundancy Regulations ..... | 1328 |
| <i>Ukrit Watchareeruetai, Tetsuya Matsumoto, Yoshinori Takeuchi, Hiroaki Kudo, Noboru Ohnishi</i>                       |      |

|                                                                                                                   |      |
|-------------------------------------------------------------------------------------------------------------------|------|
| An Evaluation Method of EndoButton Position in MDCT Image After Anterior Cruciate Ligament Reconstruction. ....   | 1334 |
| <i>Kouki Nagamune, Daisuke Arake, Koji Nishimot, Yuichi Hoshino, Seiji Kubo, Ryosuke Kuroda, Mashiro Kurosaka</i> |      |

|                                                                                                        |      |
|--------------------------------------------------------------------------------------------------------|------|
| Implementation of Fuzzy Q-Learning Based on Modular Fuzzy Model and Parallel Structured Learning ..... | 1338 |
| <i>Toshihiko Watanabe</i>                                                                              |      |

|                                   |      |
|-----------------------------------|------|
| Hybrid Clustering Algorithm ..... | 1345 |
| <i>B. Chandra</i>                 |      |

#### M4-Rm6

#### Image Processing/Pattern Recognition IV

|                                                                                                 |      |
|-------------------------------------------------------------------------------------------------|------|
| Digital Image Encoding Using Hyperchaos .....                                                   | 1349 |
| <i>Fethi Belkhouche, L Gokcen</i>                                                               |      |
| Facial-component-based Bag of Words and PHOG Descriptor for Facial Expression Recognition ..... | 1353 |
| <i>Zisheng Li, Jun-Ichi Imai, Masahide Kaneko</i>                                               |      |
| Fixed Time Template Matching .....                                                              | 1359 |
| <i>Robert Finis Anderson, Haim Schweitzer</i>                                                   |      |
| Position estimation of goldfish using image processing for scooping goldfish robot .....        | 1365 |
| <i>Yoshihiko Yamamoto, Hiromi Watanabe, Tsutomu Tanzawa, Shinji Kotani</i>                      |      |
| A two-step Pansharpening of ETM+ TIR image based on SFIM and neural network regression .....    | 1371 |
| <i>Min Han, Wei Yao</i>                                                                         |      |
| An Effective Background Reconstruction Method for Complicated Traffic Crossroads ..             | 1376 |
| <i>Hong Liu, Wei Chen</i>                                                                       |      |

## M4-Rm7

### Evolutionary Computation III

|                                                                                                                            |      |
|----------------------------------------------------------------------------------------------------------------------------|------|
| Evolving Plural Programs by Genetic Network Programming with Multi-Start Nodes ..                                          | 1382 |
| <i>Shingo Mabu, Kotaro Hirasawa</i>                                                                                        |      |
| A Novel Quantum Evolutionary Algorithm for Quadratic Knapsack Problem .....                                                | 1388 |
| <i>Apurva Narayan, Chellapillah Patvardhan</i>                                                                             |      |
| Comparing the Performance of Deterministic Dynamic Adaptation GA and Self Adaptive GA in Online Auctions Environment ..... | 1393 |
| <i>Kim Soon Gan, Patricia Anthony, Jason Teo, Kim On Chin</i>                                                              |      |
| Self-Adaptive Ant Colony System for the Traveling Salesman Problem .....                                                   | 1399 |
| <i>Wei-jie Yu, Xiao-min Hu, Jun Zhang, Rui-Zhang Huang</i>                                                                 |      |
| A New Genetic Algorithm for the SET k-cover Problem in Wireless Sensor Networks ..                                         | 1405 |
| <i>Jun Zhang, Yuan-Long Li, Xiao-Min Hu</i>                                                                                |      |

## M4-Rm8

### Agent-Based Modeling

|                                                                                                                              |      |
|------------------------------------------------------------------------------------------------------------------------------|------|
| Data-Parallel Algorithms for Large-Scale Real-Time Simulation of the Cellular Potts Model on Graphics Processing Units ..... | 1411 |
| <i>Jose Juan Tapia, Roshan D'Souza</i>                                                                                       |      |
| Office Layout Plan Evaluation System for Normal Use and Emergency by Multiagent ..                                           | 1419 |
| <i>Takumi Ozaki, Hiroyuki Takanashi, Yuko Osana</i>                                                                          |      |
| Impact of Communication on Agent-Based Social Simulations Using the PAX Framework                                            | 1425 |
| <i>Marcelo Pita, Fernando Buarque Lima Neto, Hugo Serrano Barbosa Filho</i>                                                  |      |
| An Adaptive Ant-Based Clustering Algorithm with Improved Environment Perception .                                            | 1431 |
| <i>Idris El-Feghi, Mohamed Errateeb, Majid Ahmadi, M. A. ahmed</i>                                                           |      |
| Constrained Rationality: Formal Goals-Reasoning Approach to Strategic Decision & Conflict Analysis .....                     | 1439 |
| <i>Majed Al-Shawa, Otman Basir</i>                                                                                           |      |
| On a Framework for the Prediction and Explanation of Changing Opinions .....                                                 | 1446 |
| <i>Eunice E. Santos, Eugene Santos, John Thomas Wilkinson, Huadong Xia</i>                                                   |      |

## M4-Rm9

### Systems Engineering and Sustainability II

|                                                                                                                           |      |
|---------------------------------------------------------------------------------------------------------------------------|------|
| Canadas healthcare sustainability: a holistic perspective on emerging challenges .....                                    | 1453 |
| <i>Vikraman Baskaran, B Shah, A J Tiessen</i>                                                                             |      |
| Stochastic inverse problems for growth models .....                                                                       | 1458 |
| <i>Hycham Basta</i>                                                                                                       |      |
| Using heavy-tailed distributions to stress-test kernel methods for segregating the firms that are likely to survive ..... | 1464 |
| <i>Aziz Guergachi, Pouyan Hosseinizadeh</i>                                                                               |      |
| Eco-Effectiveness, Eco-efficiency, and the Metabolism of a City: a Multi-sectoral Analysis                                | 1470 |
| <i>Rodrigo Villarroel Walker, M. Bruce Beck, Feng Jiang, Olufemi Osidele</i>                                              |      |
| Incremental infrastructure transitions towards cities as forces for good in environment .                                 | 1476 |
| <i>Feng Jiang, Feng Shi, Rodrigo Villarroel Walkeru, Zhulu Lin, M. Bruce Beck</i>                                         |      |

## M4-Rm10

### Informatics and Computational Intelligence

|                                                                                                                                |      |
|--------------------------------------------------------------------------------------------------------------------------------|------|
| A Viable System Perspective on Enterprise Architecture Management .....                                                        | 1483 |
| <i>Sabine Buckl, Christian M. Schweda, Florian Matthes</i>                                                                     |      |
| Gain-Scheduling Control of a Teleoperation System .....                                                                        | 1489 |
| <i>Jang Ho Cho, Doo Yong Lee</i>                                                                                               |      |
| Quantum-Inspired Evolutionary Multicast Algorithm .....                                                                        | 1496 |
| <i>Yangyang Li, Jingjing Zhao, Licheng Jiao, Qiuyi Wu</i>                                                                      |      |
| Improving Image Sets Through Sense Disambiguation and Context Ranking .....                                                    | 1502 |
| <i>Anthony Roger Buck, Walterio W. Mayol</i>                                                                                   |      |
| Using Fuzzy Cognitive Map for Evaluation of RFID-based Reverse Logistics Services ..                                           | 1510 |
| <i>Amy J.C. Trappey, Charles Trappey, Chang-Ru Wu, Fu-Chiang Hsu</i>                                                           |      |
| Combination of Nonlinear Filters and ANN for Detection of Microcalcifications in Digi-<br>tized Mammography .....              | 1516 |
| <i>Joel Quintanilla, Maria Guadalupe Cortina, Jose Miguel Barron, Antonio Vega-<br/>Corona, Diego Andina, Aleksandar Jevti</i> |      |

## M4-Rm11

### Conflict Resolution II

|                                                                                                                  |      |
|------------------------------------------------------------------------------------------------------------------|------|
| Establishment of the Index System for Evaluation of Brownfield Redevelopment Projects<br>in China .....          | 1521 |
| <i>Yuming Zhu, Keith W. Hipel, Peng Guo</i>                                                                      |      |
| An Extended Power Index to Evaluate Coalition Influence Based on Blockability Relations<br>on Simple Games ..... | 1527 |
| <i>Masahito Kitamura, Takehiro Inohara</i>                                                                       |      |
| Representing Status Quo Analysis in the Graph Model with Strength of Preference ....                             | 1533 |
| <i>Kevin W. Li, Min Zhao, Haiyan Xu</i>                                                                          |      |
| An Algebraic Approach to Calculating Stabilities in the Graph Model with Strength of<br>Preference .....         | 1539 |
| <i>Haiyan Xu, D. Marc Kilgour, Keith W. Hipel</i>                                                                |      |
| Using Fuzzy Real Options in a Brownfield Redevelopment Decision Support System ...                               | 1545 |
| <i>Qian Wang, Keith W. Hipel, D. Marc Kilgour</i>                                                                |      |

## M4-Rm12

### Intelligent Internet Systems II

|                                                                                                                                 |      |
|---------------------------------------------------------------------------------------------------------------------------------|------|
| Text Clustering Approach Based on Maximal Frequent Term Sets .....                                                              | 1551 |
| <i>Chong Su, Qingcai Chen, Xiaolong Wang, Xianjun Meng</i>                                                                      |      |
| CRF-based Active Learning for Chinese Named Entity Recognition .....                                                            | 1557 |
| <i>Lin Yao, Chengjie Sun, Shaofeng Li, Xiaolong Wang, Xuan Wang</i>                                                             |      |
| The Improvement of Q-learning Applied to Imperfect Information Game .....                                                       | 1562 |
| <i>Jing Lin, Xuan Wang, Lijiao Han, Jiajia Zhang, Xinxin Xu</i>                                                                 |      |
| Facial Expression Recognition Using Embedded Hidden Markov Model .....                                                          | 1568 |
| <i>Languang He, Xuan Wang, Chenglong Yu, Kun Wu</i>                                                                             |      |
| Applying Conditional Random Fields On Chinese Syllable Recognition .....                                                        | 1573 |
| <i>Jie Li, Xuan Wang, Yi Yang</i>                                                                                               |      |
| Linguistic Text Mining for Problem Reports .....                                                                                | 1578 |
| <i>Jane T. Malin, David Rutherford Throop, Christopher Millward, Fernando Gomez, Carroll G. Thronesbery, Hansen A. Schwartz</i> |      |

## M4-Rm13

### Grey Systems III

|                                                                                                                        |      |
|------------------------------------------------------------------------------------------------------------------------|------|
| On Effect of Qualified Scientists and Technicians Gathering .....                                                      | 1584 |
| <i>KeQin Sheng, Ruilan Wang, Sifeng Liu, Zhigeng Fang</i>                                                              |      |
| The Status Quo and Supply Prediction for Suzhou Sci-Tech Innovative Talents .....                                      | 1588 |
| <i>Jianling Wang, Si-Feng Liu, Lu Qin, Chuanmin Mi</i>                                                                 |      |
| Study on 2-tuple Linguistic Assessment Method based on Grey Cluster with Incomplete Attribute Weight Information ..... | 1593 |
| <i>Chuanmin Mi, Si-Feng Liu, Yao-Guo Dang, Jianling Wang, Zhengpeng Wu</i>                                             |      |

## M4-Rm14

### Intelligent Signal Processing and Its Applications

|                                                                                                                                    |      |
|------------------------------------------------------------------------------------------------------------------------------------|------|
| An Intelligent Detection Approach to Multi-Intrusions Based on Hybrid-model Searching Algorithm .....                              | 1598 |
| <i>Mong-Fong Horng, Wen-Shayng Hsieh, Bo-Chao Chang, Yu-Cheng Lin</i>                                                              |      |
| A Fast Tree-Based Search Algorithm for Cluster Search Engine .....                                                                 | 1603 |
| <i>Chun-Wei Tsai, Ming-Chao Chiang, Chu-Sing Yang, Ko-Wei Huang</i>                                                                |      |
| A Semi-Supervised Support Vector Machine Based Algorithm for Face Recognition ....                                                 | 1609 |
| <i>Chun-Wei Tsai, Chu-Sing Yang, Ming-Chao Chiang, Yang Wei-Shan, Keng-Mao Cho, Shou-Jen Lin</i>                                   |      |
| Automatic Die Inspection for Post-sawing LED Wafers .....                                                                          | 1615 |
| <i>Chuan-Yu Chang, Yung-Chi Chang, Chun-Hsi Li, and MuDer Jeng</i>                                                                 |      |
| Mixing Matrix Identification for Underterminated Blind Signal Separation: Using Hough Transform and Fuzzy K-means Clustering ..... | 1621 |
| <i>Tsung-Ying Sun, Ling-Erh Lan, Chan-Cheng Liu, Chih-Li Huo</i>                                                                   |      |
| Out-of-Focus Blur Estimation for Blind Image Deconvolution: Using Partical Swarm Optimization .....                                | 1627 |
| <i>Tsung-Ying Sun, Sin-Jhe Ciou, Chan-Cheng Liu, Chih-Li Huo</i>                                                                   |      |

## **T1-Rm1**

### **Human-Machine Interface & Communications I**

|                                                                                                       |      |
|-------------------------------------------------------------------------------------------------------|------|
| Understanding And Executing A Declarative Sentence Involving A Forms-Of-Be Verb .                     | 1633 |
| <i>W. Faris, K. Cheng</i>                                                                             |      |
| Evaluating A Model for Generating Interactive Facial Expressions using Simple Recurrent Network ..... | 1639 |
| <i>Yuki Matsui, Masayoshi Kanoh, Shohei Kato, Tsuyoshi Nakamura, Hidenori Itoh</i>                    |      |
| Conversational Gestures in Human-Robot Interaction .....                                              | 1645 |
| <i>Paul Bremner, Anthony Pipe, Sriram Subramanian, Mike Fraser, Chris Melhuish</i>                    |      |
| A Human Eye Like Perspective for Remote Vision .....                                                  | 1650 |
| <i>Curtis M Humphrey, Stephen R. Motter, Julie A. Adams, Mark Gonyea</i>                              |      |
| Social Network Service with Maturity Level for Science Teachers .....                                 | 1656 |
| <i>Masayuki Sakoda, Yoshihisa Wada, Hiroshi Tsuji, Seta Kazuhisa</i>                                  |      |

## T1-Rm2

### Human Factors I

|                                                                                                                                      |      |
|--------------------------------------------------------------------------------------------------------------------------------------|------|
| Impact of Pulse Width and Pulse Oscillation Interval on Perception of Pseudo-Attraction Force .....                                  | 1662 |
| <i>Tomohiro Amemiya, Taro Maeda</i>                                                                                                  |      |
| Relating biodynamic feedthrough to neuromuscular admittance .....                                                                    | 1668 |
| <i>Joost Venrooij, Marinus Maria Van Paassen, Mark Mulder, David A. Abbink, Max Mulder</i>                                           |      |
| Mechanical and Perceptual Analyses of Human Foot Movements in Pedal Operation ...                                                    | 1674 |
| <i>Yoshiyuki Tanaka, Hidekazu Kaneyuki, Toshio Tsuji, Tooru Miyazaki, Kazuo Nishikawa, Takahide Nouzawa</i>                          |      |
| Psychomotor Profiling with Bayesian Networks - Prediction of User Abilities based on Inputs of Motorized Wheelchair Parameters ..... | 1680 |
| <i>Meike Jipp, Christian Bartolein, Essameddin Badreddin, Ciamak Abkai, Juergen Hesser</i>                                           |      |
| Haptic Car-Following Support with Deceleration Control .....                                                                         | 1686 |
| <i>Mark Mulder, Marinus Maria Van Paassen, Max Mulder, David A. Abbink, Jasper J.A. Pauwelussen</i>                                  |      |

## T1-Rm3

### Information Systems for Design and Marketing

|                                                                                                  |      |
|--------------------------------------------------------------------------------------------------|------|
| Chance Discovery with Data Crystallization for Scenario Formation in Solar Cell Technology ..... | 1692 |
| <i>Tzu-Fu Chiu, Chao-Fu Hong, Ming-Yeu Wang, Yu-Ting Chiu</i>                                    |      |
| Reflective visualization of dispute resolution .....                                             | 1698 |
| <i>Yoshiharu Maeno, Nitta Katsumi, Yukio Ohsawa</i>                                              |      |
| Niche of Idea Activations as Source of Social Creativity: a Finding from Innovation Game         | 1704 |
| <i>Yukio Ohsawa, Yoko Nishihara</i>                                                              |      |
| Social Chance Discovery .....                                                                    | 1710 |
| <i>Jheng-Long Wu, Chao Fu Hong, Chien-Jen Huang</i>                                              |      |
| Seeking Chances through Interface Design. The Role of Abduction .....                            | 1714 |
| <i>Magnani Lorenzo, Emanuele Bardone</i>                                                         |      |

## T1-Rm4

### Brain-based Information Communications

|                                                                                                                                                                                                                  |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Possibility of reinforcement learning using event-related potential toward an adaptive BCI<br><i>Yasuhiro Wada, Kazuhiro Nomoto, Tadashi Tsubone</i>                                                             | 1720 |
| A model of motor learning in closed-loop brain-machine interfaces: predicting neural tuning changes .....<br><i>Rodolphe Heliot, Jose M Carmena</i>                                                              | 1726 |
| Spatio-Spectral & Temporal Parameter Searching using Class Correlation Analysis and Particle Swarm Optimization for a Brain Computer Interface .....<br><i>Abdul Rehman Satti, Damien Coyle, Girijesh Prasad</i> | 1731 |
| Prerequisites for Symbiotic Brain-Machine Interfaces .....<br><i>Justin C. Sanchez, Jose Principe</i>                                                                                                            | 1736 |
| Use the concept of the social capital to search enterprise's competitive environment ....<br><i>Mu-Hua Lin, Hsiao-Fang Yang</i>                                                                                  | 1742 |

## T1-Rm5

### Soft Computing V

|                                                                                                                                                                       |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Development of the Color Constancy Vision Algorithms using Bio-inspired Information Processing .....<br><i>Yasunori Takemura, Kazuo Ishii</i>                         | 1746 |
| Differential Evolution with Polymorphic Schemes .....<br><i>Christian Veenhuis, Mario Koeppen</i>                                                                     | 1752 |
| Evolutionary Many-Objective Optimization by NSGA-II and MOEA/D with Large Populations .....<br><i>Hisao Ishibuchi, Yuji Sakane, Noritaka Tsukamoto, Yusuke Nojima</i> | 1758 |
| Music/Lyrics Composition System Considering User's Image and Music Genre .....<br><i>Takehisa Onisawa, Chisa Nakamura</i>                                             | 1764 |
| Estimation of Mobile Robot Ego-Motion and Obstacle Depth Detection by Using Optical Flow .....<br><i>XueBing Wang, Kenji ban, Kazuo Ishii</i>                         | 1770 |

## **T1-Rm6**

### **Image Processing/Pattern Recognition V**

|                                                                                     |      |
|-------------------------------------------------------------------------------------|------|
| Image Segmentation Using Minimum Cross-Entropy Thresholding .....                   | 1776 |
| <i>Ali El-Zaart, Amani Al-Ajlan</i>                                                 |      |
| An Application of Linear Mixed Effects Model to Steganography Detection .....       | 1782 |
| <i>Mei-Ching Chen, Anuradha Roy, Benjamin M. Rodriguez, Sos Agaian, Philip Chen</i> |      |
| Image Classification and Processing using Modified Parallel-ACTIT .....             | 1787 |
| <i>Jun Ando, Tomoharu Nagao</i>                                                     |      |
| (2D)2PCA-ICA: A New Approach for Face Representation and Recognition .....          | 1792 |
| <i>Dongmin Jeong, Sang-Woo Ban, Minho Lee</i>                                       |      |
| New Edge Detector Using 2D Gamma Distribution .....                                 | 1798 |
| <i>Hessah Alsaaran, Ali El-Zaart</i>                                                |      |

## **T1-Rm7**

### **Swarm Intelligence**

|                                                                                                                             |      |
|-----------------------------------------------------------------------------------------------------------------------------|------|
| Parallel Ant Colony with Local Pattern Search for Nonlinear Function Optimization with Graphics Hardware Acceleration ..... | 1803 |
| <i>Weihang Zhu, James Curry</i>                                                                                             |      |
| Control Of An Airship Using Particle Swarm Optimization and Neural Network .....                                            | 1809 |
| <i>Ruting Jia, Michael T. Frye, Chunjiang Qian</i>                                                                          |      |
| Hybridisation of GA and PSO to Optimise N-tuples .....                                                                      | 1815 |
| <i>M.A. Hannan Bin Azhar, Farzin Deravi, Keith Dimond</i>                                                                   |      |
| Image Compression and Recovery through Compressive Sampling and Particle Swarm ..                                           | 1821 |
| <i>David Sturgill, Benjamin Van Ruitenbeek, Robert J. Marks</i>                                                             |      |
| A Clustering-based Adaptive Parameter Control Method for Continuous Ant Colony Optimization .....                           | 1827 |
| <i>Yue-jiao Gong, Rui-tian Xu, Jun Zhang, Ou Liu</i>                                                                        |      |

## **T1-Rm8**

### **Innovative Methodology of Soft Computing for Management Engineering**

|                                                                                          |      |
|------------------------------------------------------------------------------------------|------|
| Wise Mining Method through Ant Colony Optimization .....                                 | 1833 |
| <i>Jianxiong Yang, Junzo Watada</i>                                                      |      |
| Fuzzy Portfolio Selection based on Value-at-Risk. ....                                   | 1840 |
| <i>Bo Wang, Shuming Wang, Junzo Watada</i>                                               |      |
| Fuzzy Random Facility Location Problems with Recourse .....                              | 1846 |
| <i>Shuming Wang, Junzo Watada, Witold Pedrycz</i>                                        |      |
| Finding Abnormal Events in Home Sensor Network Environment Using Correlation Graph ..... | 1852 |
| <i>Huey-Ming Lee, Ching-Hao Mao</i>                                                      |      |
| The IEEE802.11n Capability Analysis Model Based on Mobile Networking Architecture .....  | 1857 |
| <i>Mei-Fang Lin, Lily Lin, Jung-Yung Tzu, Huey-Ming Lee</i>                              |      |

## **T1-Rm9**

### **Machine Learning I**

|                                                                                      |      |
|--------------------------------------------------------------------------------------|------|
| Machine Learning despite Unknown Classes .....                                       | 1861 |
| <i>Christopher B. Smith</i>                                                          |      |
| Automatic Red Tide Detection from MODIS Satellite Images .....                       | 1864 |
| <i>Weijian Cheng, Lawrence O. Hall, Dmitry B. Goldgof, Chuanmin Hu, Inia M. Soto</i> |      |
| Design of a Modified One-Against-All SVM Classifier .....                            | 1869 |
| <i>J. Manikandan, B. Venkataramani</i>                                               |      |
| Multi-Stage Decision Tree based on Inter-class and Inner-class Margin of SVM .....   | 1875 |
| <i>Mingzhu Lu, Philip Chen, Huo Jianbing, Xizhao Wang</i>                            |      |

## **T1-Rm10**

### **Cognitive Radio Networks and Technologies I**

|                                                                                                |      |
|------------------------------------------------------------------------------------------------|------|
| Fairness Constrained Optimization of Channel Allocation for Open Spectrum Networks .....       | 1881 |
| <i>Tao Zhang, Bin Wang, Zhiqiang Wu</i>                                                        |      |
| Joint Algorithm of Scheduling and Network Flow in Cognitive Radio Wireless Mesh Networks ..... | 1887 |
| <i>Ju Bin Song, Ki Hwan Lee, Zhu Han</i>                                                       |      |

|                                                                                               |      |
|-----------------------------------------------------------------------------------------------|------|
| Channel Selection in Multi-user Cognitive Radio Systems: A Learning Framework .....           | 1893 |
| <i>Husheng Li</i>                                                                             |      |
| Compressive Spectrum Sensing Front-ends for Cognitive Radios .....                            | 1899 |
| <i>Zhuizhuan Yu, Sebastian Hoyos</i>                                                          |      |
| Novel Reconfigurable Randomized Broadcast Algorithm for Channel-Aware Wireless Networks ..... | 1905 |
| <i>Scott C.-H Huang, Shih Yu Chang, Hsiao-Chun Wu, Peng-Jun Wan</i>                           |      |

## **T1-Rm11**

### **Conflict Resolution III**

|                                                                                                                                        |      |
|----------------------------------------------------------------------------------------------------------------------------------------|------|
| Strategic Analysis of the Conflict Over Irans Nuclear Program .....                                                                    | 1911 |
| <i>Majid Sheikhmohammady, D. Marc Kilgour, Keith W. Hipel, Hossein Asilahijani</i>                                                     |      |
| Modeling and Analysis of Aid Coordination Processes for Post-disaster Education in Indonesia after the 2004 Indian Ocean Tsunami ..... | 1917 |
| <i>Megumi Sugimoto, Norio Okada, Liping Fang</i>                                                                                       |      |
| Labor Mobility, Goods Tradability, and Efficient Allocation of Disaster Risk .....                                                     | 1923 |
| <i>Tao Ye, Muneta Yokomatsu, Norio Okada</i>                                                                                           |      |
| Collaborative Action Development for Community Disaster Reduction by Utilizing the Yonmenkaigi System Method .....                     | 1929 |
| <i>Jong il Na, Norio Okada, Liping Fang</i>                                                                                            |      |
| Modeling the Social Resilience of Mountain Communities Under Volcanic Risk .....                                                       | 1935 |
| <i>Saut Aritua Hasiholan Sagala, Norio Okada, Douglas Paton</i>                                                                        |      |

## **T1-Rm12**

### **Intelligent Control for Mobile Robots**

|                                                                                                        |      |
|--------------------------------------------------------------------------------------------------------|------|
| Object Recognition from Omnidirectional Visual Sensing for Mobile Robot Applications                   | 1941 |
| <i>Ming-Liang Wang, Huei-Yung Lin</i>                                                                  |      |
| Mobile Robot Localization and Path Planning Using an Omnidirectional Camera and Infrared Sensors ..... | 1947 |
| <i>Huei-Yung Lin, Min Liang Wang, Li-Wei Kao, Chia-Hao Hsieh</i>                                       |      |

|                                                                                                                          |      |
|--------------------------------------------------------------------------------------------------------------------------|------|
| Human-Robot Interaction of an Active Mobile Robotic Assistant in Intelligent Space Environments .....                    | 1953 |
| <i>Ching-Chih Tsai, Shih-Min Hsieh, Yuan-Pao Hsu, Yu-Sheng Wang</i>                                                      |      |
| SoPC-Based Parallel Elite Genetic Algorithm for Global Path Planning of an Autonomous Omnidirectional Mobile Robot ..... | 1959 |
| <i>Hsu-Chih Huang, Ching-Chih Tsai, Shui-Chun Lin</i>                                                                    |      |
| Nonlinear Adaptive Sliding-Mode Control Design for Two-Wheeled Human Transportation Vehicle .....                        | 1965 |
| <i>Shui-Chun Lin, Ching-Chih Tsai, Hsu-Chih Huang</i>                                                                    |      |

## **T1-Rm13**

### **Distributed Intelligent Systems**

|                                                                                                                                           |      |
|-------------------------------------------------------------------------------------------------------------------------------------------|------|
| Relative phase control in a circularly coupled oscillator system and its application to timing regulation of a multicylinder engine ..... | 1971 |
| <i>Satoshi Ito, Takafumi Tsukiyama, Minoru Sasaki, Yoji Fujita</i>                                                                        |      |
| A Deterministic Model for History Sensitive Cascade in Diffusion Networks .....                                                           | 1977 |
| <i>Yu Zhang</i>                                                                                                                           |      |
| An Autonomous Agent-based Framework for Self-Healing Power Grid .....                                                                     | 1983 |
| <i>Zeinab Noorian, Hadi Hosseini, Mihaela Ulieru</i>                                                                                      |      |
| Quick Consensus Through Early Disposal of Faulty Processes .....                                                                          | 1989 |
| <i>Biplab Kumar Sikdar, Mamata Dalui, Bidesh Chakraborty</i>                                                                              |      |
| Sequential Auctions for Heterogeneous Task Allocation in Multiagent Routing Domains .....                                                 | 1995 |
| <i>George Thomas, Andrew B. Williams</i>                                                                                                  |      |
| The Design of Multi-agent based Distributed Energy System .....                                                                           | 2001 |
| <i>Mingzhu Lu, Philip Chen</i>                                                                                                            |      |

## **T1-Rm14**

### **The System of Vehicle, Driver, Environment and Control (VDEC)**

|                                                                                                          |      |
|----------------------------------------------------------------------------------------------------------|------|
| A Biologically Inspired Adaptive Nonlinear Control Strategy for Applications to Powertrain Control ..... | 2007 |
| <i>Hossein Javaherian, Ting Huang, Derong Liu</i>                                                        |      |

|                                                                                                          |      |
|----------------------------------------------------------------------------------------------------------|------|
| Model Predictive Control of Velocity and Torque Split in a Parallel Hybrid Vehicle ....                  | 2014 |
| <i>Tae Soo Kim, Chris Manzie, Rahul Sharma</i>                                                           |      |
| Real-time Driving Behavior Identification Based on Driver-in-the-loop Vehicle Dynamics and Control ..... | 2020 |
| <i>Dimitar Filev, Jianbo Lu, Prakah-Asante Kwaku, Fling Tseng</i>                                        |      |
| Robust Sideslip Estimation Using GPS Road Grade Sensing to Replace a Pitch Rate Sensor .....             | 2026 |
| <i>Ryan Jonathan, Bevely Dave, Jianbo Lu</i>                                                             |      |
| A Unified Approach to Semi-Autonomous Control of Passenger Vehicles in Hazard Avoidance Scenarios .....  | 2032 |
| <i>Sterling J. Anderson, Steven C. Peters, Tom E. Pilutti, Karl D. Iagnemma</i>                          |      |

## **T2-Rm1**

### **Human-Machine Interface & Communications II**

|                                                                                                                     |      |
|---------------------------------------------------------------------------------------------------------------------|------|
| A Software Framework for Multimodal Human-Computer Interaction Systems .....                                        | 2038 |
| <i>Jie Shen, Maja Pantic</i>                                                                                        |      |
| Generating content presentation according to purpose .....                                                          | 2046 |
| <i>Sevan Kavaldjian, Juergen Falb, Hermann Kaindl</i>                                                               |      |
| Semi-automatic user interface generation considering pointing granularity .....                                     | 2052 |
| <i>Sevan Kavaldjian, David Raneburger, Juergen Falb, Hermann Kaindl, Dominik Ertl</i>                               |      |
| A Public Safety Application of GPS-Enabled Smartphones and the Android Operating System .....                       | 2059 |
| <i>William L Arensman, John G. Whipple, Marian Starr Boler</i>                                                      |      |
| Do User Appreciate Novel Interface Features for Literature Search? – A User Study in the Life Sciences Domain ..... | 2062 |
| <i>Joachim Wermter, Udo Hahn, Rico Landefeld, Anne Schneider</i>                                                    |      |

## **T2-Rm2**

### **Human Factors II**

|                                                                                      |      |
|--------------------------------------------------------------------------------------|------|
| Personalized Curriculum Composition by Learner Profile Driven Data Mining .....      | 2068 |
| <i>Rainer Knauf, Yoshitaka Sakurai, Setsuo Tsuruta, Kouhei Takada, Shinichi Dohi</i> |      |

|                                                                                                    |      |
|----------------------------------------------------------------------------------------------------|------|
| Cognitive styles and Web-based Instruction: Field Dependent/Independent vs. Holist/Serialist ..... | 2074 |
| <i>Sherry Chen, Natalie Clewley, Xiaohui Liu</i>                                                   |      |
| Positive and Negative Predictive Power as an Aid in Robust/Dynamic Decision Making .....           | 2080 |
| <i>Daniel William Reppeger, Joel S. Warm, Michael A Vidulich, Victor S. Finomore</i>               |      |
| A flexible model for real-time crowd simulation .....                                              | 2085 |
| <i>Nico Hempe, Philipp Tietjen, Jurgen Rossmann</i>                                                |      |
| A Joint Model for Usability and Security of the Passenger Process in Airports .....                | 2091 |
| <i>Pravir K Chawdhry, Giuliano Pirelli</i>                                                         |      |

## **T2-Rm3**

### **Design Methods**

|                                                                                             |      |
|---------------------------------------------------------------------------------------------|------|
| Applying Software Product Line Technology to Prototyping of Real-Time Object Tracking ..... | 2099 |
| <i>Chia-Chu Chiang, Bill Marshall</i>                                                       |      |
| Design and Implementation of Data Encryption for Networked Control Systems .....            | 2105 |
| <i>Ke-Ya Yuan, Jie Chen, Guo-Ping Liu, Jian Sun</i>                                         |      |
| Processes in Virtual Engineering Spaces .....                                               | 2110 |
| <i>Laszlo Horvath, Imre J. Rudas</i>                                                        |      |
| Future User Requirement Elicitation for Technology Investment: A Formal Approach ..         | 2116 |
| <i>Mary Tom, Joaquin Sitte</i>                                                              |      |

## **T2-Rm4**

### **Multimedia Systems and Web Intelligence**

|                                                                                     |      |
|-------------------------------------------------------------------------------------|------|
| A personalized TV Guide System: An Approach to Interactive Digital Television ..... | 2122 |
| <i>Paulo Muniz Avila, Sergio Donizetti Zorzo</i>                                    |      |
| A Framework for Attention-Based Personal Photo Manager .....                        | 2128 |
| <i>Wen-Hung Liao</i>                                                                |      |
| A Boosted Semi-supervised Learning Framework for Web Page Filtering .....           | 2133 |
| <i>Zhu He, Xi Li, Weiming Hu</i>                                                    |      |

## T2-Rm5

### Soft Computing VI

|                                                                                                             |      |
|-------------------------------------------------------------------------------------------------------------|------|
| Effect of Using Partial Solutions in Edge Histogram Sampling Algorithms with Different Local Searches ..... | 2137 |
| <i>Shigeyoshi Tsutsui</i>                                                                                   |      |
| Office-mate: Selective attention and incremental object perception .....                                    | 2143 |
| <i>Minho Lee, Young-Min Jang, Sang-Woo Ban</i>                                                              |      |
| A Study on Motion Adaptation against Robot Structure Changes .....                                          | 2149 |
| <i>Yuki Funabara, Yoshikazu Yano, Shinji Doki, Shigeru Okuma</i>                                            |      |
| Evolutionary Routing-Path Selection in Congested Communication Networks .....                               | 2155 |
| <i>Mario Koeppen, Kaori Yoshida, Masato Tsuru, Yuji Oie</i>                                                 |      |
| Active-Semantic Localization with a Single Consumer-Grade Camera .....                                      | 2161 |
| <i>Chuhö Yi, Il Hong Suh, Gi Hyun Lim, Byung-Uk Choi</i>                                                    |      |

## T2-Rm6

### Image Processing/Pattern Recognition VI

|                                                                                                               |      |
|---------------------------------------------------------------------------------------------------------------|------|
| Logistic discriminant analysis .....                                                                          | 2167 |
| <i>Takio Kurita, Kenji Watanabe, Nobuyuki Otsu</i>                                                            |      |
| A Robust Wavelet Based Feature Extraction Method .....                                                        | 2173 |
| <i>Iman Makaremi, Majid Ahmadi</i>                                                                            |      |
| Salient region extraction based on Intensity Mapping for image retrieval .....                                | 2177 |
| <i>Congyan Lang, De Xu, Ning Li, Songhe Feng</i>                                                              |      |
| Effectiveness of Assigning Confidence Levels to Classifiers and a Novel Feature in Fingerprint Matching ..... | 2181 |
| <i>Khurram Yasin Qureshi, Shoab Ahmed Khan</i>                                                                |      |
| Ensemble for High Recognition Performance FPGA .....                                                          | 2187 |
| <i>Osman Hassab Elgawi</i>                                                                                    |      |

## T2-Rm7

### Swarm Intelligence/Knowledge-based Systems

|                                                                                                           |      |
|-----------------------------------------------------------------------------------------------------------|------|
| Edge Detection Using Ant Colony Search Algorithm and Multiscale Contrast Enhancement .....                | 2193 |
| <i>Aleksandar Jevtic, Joel Quintanilla, Maria Guadalupe Cortina-Januchs, Diego Andina</i>                 |      |
| Ant Colony Optimization Algorithm for Reactive Production Scheduling Problem in the Job Shop System ..... | 2199 |
| <i>Edilson R. R. Kato, Orides Morandin Jr., Marcos Abraao de Souza Fonseca</i>                            |      |
| Termination Analysis of Active Rules - A Petri Net Based Approach .....                                   | 2205 |
| <i>Xiaoou Li, Lorena Chavarria-Baez</i>                                                                   |      |
| An architecture for integrating an Expert System with NEPLAN in a DMS/EMS operational environment .....   | 2211 |
| <i>Alfredo Espinosa, Jesus Fidel Borjas, Agustin Quintero, Benjamin Sierra, Rafael Torres Abrego</i>      |      |
| A Cumulative Belief-Degree Approach for Nuclear Safeguards Evaluation .....                               | 2216 |
| <i>Ozgur Kabak, Da Ruan</i>                                                                               |      |

## **T2-Rm8**

### **Knowledge Acquisition in Intelligent Systems**

|                                                                                                              |      |
|--------------------------------------------------------------------------------------------------------------|------|
| A Computer Experiment and Consideration of Rule Extraction Methods by Rough Sets Based on a Rule Space ..... | 2222 |
| <i>Yuichi Kato, Tetsuro Saeki</i>                                                                            |      |
| Analysis of uncertain data: Selection of probes for information gathering .....                              | 2227 |
| <i>Anatole Gershman, Eugene Fink, Bin Fu, Jaime G. Carbonell</i>                                             |      |
| Simulation of Learning and Planning by a Novel Architecture for Cognitive Technical Systems .....            | 2233 |
| <i>Dennis Gamrad, Dirk Soeffker</i>                                                                          |      |
| Learning to Generalize and Reuse Skills Using Approximate Partial Policy Homomorphisms .....                 | 2239 |
| <i>Srividhya Rajendran, Manfred Huber</i>                                                                    |      |
| Decision Support Systems of Creative City Design: Rethinking Urban Competitiveness .....                     | 2245 |
| <i>Lee-Chuan Lin, Junzo Watada</i>                                                                           |      |

## T2-Rm9

### Machine Learning II

|                                                                                                                   |      |
|-------------------------------------------------------------------------------------------------------------------|------|
| Agents Learn from Human Experts: An Approach to Test Reconfigurable Systems .....                                 | 2251 |
| <i>Asem Eltaher, Markus Maurer, Thomas Form, Mohamed Ayeib</i>                                                    |      |
| Generation of Roles in Reinforcement Learning Considering Redistribution of Reward between Agents .....           | 2259 |
| <i>Masahiro Nakahara, Yuko Osana</i>                                                                              |      |
| Development of a multilingual text mining approach for knowledge discovery in patents .....                       | 2265 |
| <i>Chung-Hong Lee, Hsin-chang Yang, Yi-Ju Li</i>                                                                  |      |
| MP-Draughts: a Multiagent Reinforcement Learning System based on MLP and Kohonen-SOM Neural Networks .....        | 2270 |
| <i>Valquiria Aparecida Rosa Duarte, Rita Maria Silva Julia, Ayres Roberto Araujo Barcelos, Alana Bueno Otsuka</i> |      |
| Grouped data clustering using a fast mixture-model-based algorithm .....                                          | 2276 |
| <i>Allou Same</i>                                                                                                 |      |

## T2-Rm10

### Cognitive Radio Networks/Communication Networks

|                                                                                             |      |
|---------------------------------------------------------------------------------------------|------|
| Spectrum sensing with multiple antennas .....                                               | 2281 |
| <i>Kalle Ruttik, Konstantinos Koufos, Riku Jantti</i>                                       |      |
| Feasibility Study of Sensing TV Whitespace with Local Quiet Zone .....                      | 2287 |
| <i>Jianfeng Wang, Vasanth Gaddam</i>                                                        |      |
| Cognitive UWB Radio: A Smarter Radio for Smarter Products .....                             | 2293 |
| <i>James Lansford</i>                                                                       |      |
| A Receiver-Based Rate Control Scheme for Streaming Video over Wireless .....                | 2297 |
| <i>Youn-Sik Hong, Hwa-Seok Lim, Cheol-Ho Lee, Seung-Sik Choi</i>                            |      |
| Broadband RF Communications in Underwater Environments Using Multi-carrier Modulation ..... | 2303 |
| <i>Kelley Todd Brian, Kranthi Manoj, Mo Jamshidi</i>                                        |      |
| Software Defined Radio for Broadband OFDM Protocols .....                                   | 2309 |
| <i>Kelley Todd Brian</i>                                                                    |      |

## **T2-Rm11**

### **Conflict Resolution IV**

|                                                                                                                                           |      |
|-------------------------------------------------------------------------------------------------------------------------------------------|------|
| Analyses on Continuance of Unpopular International Airline by Local Government ....                                                       | 2315 |
| <i>Kei Fukuyama, Yuki Ikeda</i>                                                                                                           |      |
| Strategic Performance Comparison of Provinces in China .....                                                                              | 2321 |
| <i>Ye Chen, Xin Su, Keith W. Hipel</i>                                                                                                    |      |
| Attitudes of Institutions in Brownfield Redevelopment Projects .....                                                                      | 2327 |
| <i>Sean Walker, Keith W. Hipel, Takehiro Inohara</i>                                                                                      |      |
| Fuzzy Preferences in Conflict Resolution .....                                                                                            | 2332 |
| <i>Md. Abul Bashar, Keith W. Hipel, D. Marc Kilgour</i>                                                                                   |      |
| Research on Driving-Forces of Formation of Industrial Cluster from the Perspective of<br>Population Competition and Interdependence ..... | 2338 |
| <i>Peng Guo, Jing Zhao, Yuming Zhu</i>                                                                                                    |      |

## **T2-Rm12**

### **Robotic Systems I**

|                                                                                                    |      |
|----------------------------------------------------------------------------------------------------|------|
| A Vision-based Autonomous Lane Following System for a Mobile Robot .....                           | 2344 |
| <i>Xia Huang, Nasser Houshang</i>                                                                  |      |
| Assistive Formation Maintenance for Human-Led Multi-Robot Systems .....                            | 2350 |
| <i>Lonnie Thomas Parker, Ayanna Howard</i>                                                         |      |
| An approach for collaborative path planning in multi-robot systems .....                           | 2356 |
| <i>Fethi Belkhouche, T. Jin</i>                                                                    |      |
| Planning to Fail - Reliability Needs to be Considered a Priori in Multirobot Task Allocation ..... | 2362 |
| <i>Stephen Stancliff, John Dolan, Ashitey Trebi-Ollennu</i>                                        |      |
| CPG Driven Locomotion Control of Quadruped Robot .....                                             | 2368 |
| <i>Chengju Liu, Yifei Chen, Jiaqi Zhang, Qijun Chen</i>                                            |      |

## **T2-Rm13**

### **System Modeling & Control I**

|                                                                                                   |      |
|---------------------------------------------------------------------------------------------------|------|
| Adaptive Planning Content Sequence with Workflow .....                                            | 2374 |
| <i>Robson da Silva Lopes, Marcia Aparecida Fernandes</i>                                          |      |
| Comparing Methodologies for the Transition between Software Requirements and Architectures .....  | 2380 |
| <i>Matthias Galster, Armin Eberlein, Mahmood Moussavi</i>                                         |      |
| Design of an Error-Based Robust Adaptive Controller .....                                         | 2386 |
| <i>Ki-Young Song, Madan M. Gupta, Debashisha Jena</i>                                             |      |
| A control strategy for steering an autonomous surface sailing vehicle in a tacking maneuver ..... | 2391 |
| <i>Jerome Jouffroy</i>                                                                            |      |
| A Cellular Automata Based Model for Traffic in Congested City .....                               | 2397 |
| <i>Sukanta Das, Meghnath Saha, Biplab Kumar Sikdar</i>                                            |      |

## **T2-Rm14**

### **The System of Vehicle, Driver, Environment and Control (VDEC)**

|                                                                                                                   |      |
|-------------------------------------------------------------------------------------------------------------------|------|
| Sustainable Transport, Knowledge and Innovations at RWTH Aachen University for Europe's Systems of Tomorrow ..... | 2403 |
| <i>Klaus Henning, Richard Ramakers, Leonie Petry, Julie Iris Meinhold</i>                                         |      |
| Electronically coupled truck platoons on German highways .....                                                    | 2409 |
| <i>Klaus Henning, Dirk Abel, Stefan Gies, Richard Ramakers, Max Haberstroh</i>                                    |      |
| Optimal VSC Design Based On Nash Strategy for Differential 2-Player Games .....                                   | 2415 |
| <i>Seyed Hossein Tamaddoni, Saied Taheri, Mehdi Ahmadian</i>                                                      |      |
| Towards Increased Road Safety: Real-Time Decision Making for Driverless City Vehicles .....                       | 2421 |
| <i>Andrei Furda, Ljubo Vlacic</i>                                                                                 |      |

## **T3-Rm1**

### **Human-Machine Interface & Communications III**

|                                                                    |      |
|--------------------------------------------------------------------|------|
| Autonomous Emotional Expression Generation of a Robotic Face ..... | 2427 |
| <i>Meng-Ju Han, Chia-How Lin, Kai-Tai Song</i>                     |      |

|                                                                                                       |      |
|-------------------------------------------------------------------------------------------------------|------|
| An MMG-based Human-Assisting Manipulator Using Acceleration Sensors .....                             | 2433 |
| <i>Keisuke Shima, Toshio Tsuji</i>                                                                    |      |
| Robotic Go: Exploring a Different Perspective on Human-Computer Interaction with the Game of Go ..... | 2439 |
| <i>Tae-Hyung Kim, Jared Adam Nisbett, Donald Wunsch</i>                                               |      |
| A Customizable Game Engine for Mobile Game-Based Learning .....                                       | 2445 |
| <i>Stefano Mininel, F. Vatta, S. Gaion, W. Ukovich, M.P. Fanti</i>                                    |      |
| Network Traffic Reduction in Six Degree-of-Freedom Haptic Telementoring Systems ...                   | 2451 |
| <i>Nizar Sakr, Jilin Zhou, Nicolas D. Georganas, Jiying Zhao, Emil M. Petriu</i>                      |      |

## **T3-Rm2**

### **Human Performance Modeling I**

|                                                                                                                               |      |
|-------------------------------------------------------------------------------------------------------------------------------|------|
| Computational Modeling of Risk-Dependent Eye Movements of Car Drivers .....                                                   | 2457 |
| <i>Takashi Omori, Masayoshi Sato, Koichiro Yamauchi, Satoru Ishikawa, Toshihiro Wakita</i>                                    |      |
| A Sensorimotor Driver Model for Steering Control .....                                                                        | 2462 |
| <i>Chouki Sentouh, Philippe Chevrel, Franck Mars, Fabien Claveau</i>                                                          |      |
| A Consideration of Human-Unicycle Model for Unicycle Operation Analysis based on Moment Balancing Point .....                 | 2468 |
| <i>Hiroshi Ohsaki, Masami Iwase, Teruyoshi Sadahiro, Shoshiro Hatakeyama</i>                                                  |      |
| Analysis of human's stabilization controller in a unicycle operation using Inverse Regulator Problem of Optimal Control ..... | 2474 |
| <i>Takashi Shimamura, Hiroshi Ohsaki, Teruyoshi Sadahiro, Masami Iwase, Shoshiro Hatakeyama</i>                               |      |
| Pilot Equalization in Manual Control of Aircraft Dynamics .....                                                               | 2480 |
| <i>Daan Marinus Pool, Peter M. T. Zaal, Herman J. Damveld, Marinus Maria Van Paassen, Max Mulder</i>                          |      |

## **T3-Rm3**

### **Interactive and Digital Media**

|                                                                                                                   |      |
|-------------------------------------------------------------------------------------------------------------------|------|
| A Web Service-Based System for Sharing Distributed XML Data Using Customizable schema .....                       | 2486 |
| <i>Akira Hattori, Kuniaki Tabata, Haruo Hayami</i>                                                                |      |
| Finger Recognition for Hand Pose Determination .....                                                              | 2492 |
| <i>Jim Parker, M. R. Baumbach</i>                                                                                 |      |
| Design and Implementation of an OSGi-Centric Remote Mobile Surveillance System ...                                | 2498 |
| <i>Jenq-Shiou Leu, Wei-Hsiang Lin, Hung-Jie Tzeng</i>                                                             |      |
| An Empirical Investigation of Search-Based Computational Support for Conceptual Software Engineering Design ..... | 2503 |
| <i>Christopher L. Simons, Ian C. Parmee</i>                                                                       |      |
| The Development of a Web-based Resident Sign-out Training Program .....                                           | 2509 |
| <i>Ellen J. Bass, Justin DeVoge, Mangwi Atia, McKinsey Bond, Linda Waggoner-Fountain, Stephen M. Borowitz</i>     |      |

## **T3-Rm4**

### **Granular Computing I**

|                                                                                        |      |
|----------------------------------------------------------------------------------------|------|
| Frontier assignment method for sensitivity analysis of Data Envelopment Analysis ..... | 2515 |
| <i>Akio Naito, Shingo Aoki, Hiroshi Tsuji</i>                                          |      |
| A Granular Computing Approach to Improve Large Attributes Learning .....               | 2521 |
| <i>Fengming Michael Chang, Chien-Chung Chan</i>                                        |      |
| Mining High Average-Utility Itemsets .....                                             | 2526 |
| <i>Tzung-Pei Hong, Cho-Han Lee, Shyue-Liang Wang</i>                                   |      |
| Pearson Residuals in Multi-way Contingency Tables .....                                | 2531 |
| <i>Shusaku Tsumoto, Shoji Hirano, Hidenao Abe</i>                                      |      |
| Distribution of Derminants of Contingency Tables .....                                 | 2537 |
| <i>Shusaku Tsumoto</i>                                                                 |      |

## **T3-Rm5**

### **Heuristic Algorithms**

|                                                         |      |
|---------------------------------------------------------|------|
| The OA-Based Swap Method for the P-Median Problem ..... | 2543 |
| <i>Lin-Yu Tseng, Chih-Sheng Wu</i>                      |      |

|                                                                             |      |
|-----------------------------------------------------------------------------|------|
| Analysis of uncertain data: Smoothing of histograms .....                   | 2549 |
| <i>Eugene Fink, Ankur Sarin, Jaime G. Carbonell</i>                         |      |
| Analysis of uncertain data: Evaluation of given hypotheses .....            | 2556 |
| <i>Anatole Gershman, Eugene Fink, Bin Fu, Jaime G. Carbonell</i>            |      |
| Dynamic heuristics for the generalized job-shop scheduling problem .....    | 2562 |
| <i>Fatima Ghedjati, Marie-Claude Portmann</i>                               |      |
| An Analysis of Decision Quality of Minimizing vs. Product Propagation ..... | 2568 |
| <i>Helmut Horacek, Hermann Kaindl</i>                                       |      |

## **T3-Rm6**

### **Image Processing/Pattern Recognition VII**

|                                                                                                                   |      |
|-------------------------------------------------------------------------------------------------------------------|------|
| A Practical Several Moving Objects Area Extraction Using A Half-cosine Function Wavelet Network .....             | 2575 |
| <i>Tsutomu Miki, Kazutoshi Ikeda</i>                                                                              |      |
| Facial Landmark Detection System using Interest-region Model and Edge Energy Function .....                       | 2580 |
| <i>MiYoung Nam, Zhan Yu, Gi Han Kim, Phill Kyu Rhee</i>                                                           |      |
| A novel Max-Plus algebra based wavelet transform and its applications in Image Processing .....                   | 2585 |
| <i>Barnabas Bede, Hajime Nobuhara</i>                                                                             |      |
| Multi-focus Image Fusion Based on Salient Edge Information within Adaptive Focus-Measuring Windows .....          | 2589 |
| <i>Cheng I. Chen, Whei Po Huang, Phen-Lan Lin</i>                                                                 |      |
| A Novel White Blood Cell Detection Method Based on Boundary Support Vectors .....                                 | 2595 |
| <i>Min Wang, Rong Chu</i>                                                                                         |      |
| Fast Optimal Multimodal Thresholding Based on Between-Class Variance Using a Mixture of Gamma Distributions ..... | 2599 |
| <i>Ali El-Zaart, Eidah Eidah Assidan</i>                                                                          |      |

## **T3-Rm7**

### **Fuzzy Systems and Their Applications I**

|                                                                                                                                            |      |
|--------------------------------------------------------------------------------------------------------------------------------------------|------|
| Hybrid Intelligent Systems Applied to The Pursuit-Evasion Game .....                                                                       | 2603 |
| <i>Sameh F. Desouky, Howard M. Schwartz</i>                                                                                                |      |
| A Novel Technique to Design a Fuzzy Logic Controller Using $Q(\lambda)$ -Learning and Genetic Algorithms in The Pursuit-Evasion Game ..... | 2609 |
| <i>Sameh F. Desouky, Howard M. Schwartz</i>                                                                                                |      |
| A Novel Hybrid Learning Technique Applied to a Self-Learning Multi-Robot System ...                                                        | 2616 |
| <i>Sameh F. Desouky, Howard M. Schwartz</i>                                                                                                |      |
| Stable Fuzzy Self-Tuning PID Control of Robot Manipulators .....                                                                           | 2624 |
| <i>Jose Luis Meza, Victor Santibanez, Rogelio Soto, Miguel Angel Llama</i>                                                                 |      |
| Adaptive Fuzzy Output Feedback Control for Robot Manipulators .....                                                                        | 2630 |
| <i>Shafiqul Islam, Peter X. Liu</i>                                                                                                        |      |

## **T3-Rm8**

### **Computational Intelligence III**

|                                                                                                      |      |
|------------------------------------------------------------------------------------------------------|------|
| Combining Weights into Scores: A Linear Transform Approach .....                                     | 2636 |
| <i>Sam Y. Sung, Tianming Hu</i>                                                                      |      |
| Scheduling with uncertain resources: Representation of common knowledge .....                        | 2642 |
| <i>Eugene Fink, Matt Jennings, Konstantin Salomatin, Jaime G. Carbonell</i>                          |      |
| Bernoullis Principle of Insufficient Reason and Conservation of Information in Computer Search ..... | 2647 |
| <i>William A Dembski, Robert Jackson Marks</i>                                                       |      |
| A GA-SVM Feature Selection Model Based on High Performance Computing Techniques                      | 2653 |
| <i>Tianyou Zhang, Xiuju Fu, Rick Siow Mong Goh, Chee Keong Kwoh, Gary Kee Khoon Lee</i>              |      |
| Development and Applications of Active Noise Control System for Infant Incubators ...                | 2659 |
| <i>Lichuan Liu, Sen M. Kuo</i>                                                                       |      |

## **T3-Rm9**

### **Machine Learning III**

|                                                                                                                         |      |
|-------------------------------------------------------------------------------------------------------------------------|------|
| A Note on the Relation between a Sampling Theorem for Functions over a $GF(q)^n$ Domain and Linear Codes .....          | 2665 |
| <i>Yoshifumi Ukita, Tomohiko Saito, Toshiyasu Matsushima, Shigeichi Hirasawa</i>                                        |      |
| Dimensionality Effects on the Markov Property in Shape Memory Alloy Hysteretic Environment .....                        | 2671 |
| <i>Kenton Conrad Kirkpatrick, John Valasek</i>                                                                          |      |
| Multiresolution State-Space Discretization Method for Q-Learning with Function Approximation and Policy Iteration ..... | 2677 |
| <i>Amanda Kathryn Lampton, John Valasek</i>                                                                             |      |
| Splice Site Detection in DNA Sequences Using a Fast Classification Algorithm .....                                      | 2683 |
| <i>Jair Cervantes, Xiaouu Li, Wen Yu</i>                                                                                |      |
| Active constrained clustering with multiple cluster representatives .....                                               | 2689 |
| <i>Shaohong Zhang, Hau-San Wong</i>                                                                                     |      |
| Classification of Non-Speech Human Sounds:Feature Selection and Snoring Sound Analysis .....                            | 2695 |
| <i>Wen-Hung Liao, Yu-Kai Lin</i>                                                                                        |      |

## **T3-Rm10**

### **Self-Organization and Complex Distributed Systems**

|                                                                                            |      |
|--------------------------------------------------------------------------------------------|------|
| Control Plane Algorithms targetting Challenging Autonomic Properties in Grey Systems ..... | 2701 |
| <i>E. Catherine L. Watts, A. Taleb-Bendiab</i>                                             |      |
| An Architecture for Self-Managing Evolvable Assembly Systems .....                         | 2707 |
| <i>Regina Frei, Bruno Ferreira, Giovanna di Marzo Serugendo, Jose Barata</i>               |      |
| Non Spectrum Handover Link Maintenance Performance in Cognitive Radio .....                | 2713 |
| <i>Jin Tian, Huaglory Tianfield, Guangguo Bi</i>                                           |      |
| Health Delivery Systems - A Case for Multi-Agent Systems .....                             | 2718 |
| <i>Jiang Tian, Huaglory Tianfield</i>                                                      |      |
| Learning Intialized by Topologically Correct Representation .....                          | 2723 |
| <i>Pitoyo Peter Hartono, Thomas Trappenberg</i>                                            |      |

## **T3-Rm11**

### **Underwater Sensing and Automatic Target Recognition**

|                                                                                                                |      |
|----------------------------------------------------------------------------------------------------------------|------|
| Underwater Target Detection from Multi-Platform Sonar Imagery Using Multi-Channel Coherence Analysis .....     | 2728 |
| <i>Nick Harold Klausner, Mahmood R. Azimi-Sadjadi, James Derek Tucker</i>                                      |      |
| Contourlet Detection and Feature Extraction for Automatic Target Recognition .....                             | 2734 |
| <i>JoEllen Wilbur, Robert J. McDonald, Jason Stack</i>                                                         |      |
| Spatial Correlation Analysis Using Canonical Correlation Decomposition for Sparse Sonar Array Processing ..... | 2739 |
| <i>Yinghui Zhao, Mahmood R. Azimi-Sadjadi, Neil Wachowski, Nick Harold Klausner</i>                            |      |
| Automatic Cable Detection in Sonar Imagery .....                                                               | 2745 |
| <i>Jason C. Isaacs, Rostislav Goroshin</i>                                                                     |      |
| Dynamic Trees for Sensor Fusion .....                                                                          | 2751 |
| <i>Kittipat Kampa, J. Tory Cobb, K. Clint Slatton</i>                                                          |      |
| Correntropy Based Matched Filtering for Classification in Sidescan Sonar Imagery .....                         | 2757 |
| <i>Erion Hasanbelliu, Jose Principe, Clint Slatton</i>                                                         |      |

## **T3-Rm12**

### **Robotic Systems II**

|                                                                                                  |      |
|--------------------------------------------------------------------------------------------------|------|
| PSO-FastSLAM: An Improved FastSLAM Framework using Particle Swarm Optimization .....             | 2763 |
| <i>Heon-Cheol Lee, Shin-Kyu Park, Jeong-Sik Choi, Beom-Hee Lee</i>                               |      |
| Hybrid Simultaneous Localization and Mapping in Dense Environments .....                         | 2769 |
| <i>Suman Chakravorty, R. Saha</i>                                                                |      |
| Rut Tracking and Steering Control for Autonomous Rut Following .....                             | 2775 |
| <i>Camilo Ordonez, Oscar Y. Chuy, Emmaneul G. Collins, Xiuwen Liu</i>                            |      |
| Environment Recognition System based on Multiple Classification Analyses for Mobile Robots ..... | 2782 |
| <i>Atsushi Kanda, Masanori Sato, Kazuo Ishii</i>                                                 |      |
| Tracking under the nonholonomic constraint using cubic navigation laws .....                     | 2788 |
| <i>J. Vargas, S. Mendez, Fethi Belkhouche</i>                                                    |      |

## **T3-Rm13**

### **System Modeling & Control II**

|                                                                                                                     |      |
|---------------------------------------------------------------------------------------------------------------------|------|
| Optimal Fuzzy Control of Piezoelectric Systems Based on Hybrid Taguchi Method and Particle Swarm Optimization ..... | 2794 |
| <i>Gwo-Ruey Yu, Ji-wei Huang, Yu-Hsuan Chen</i>                                                                     |      |
| A Robust SDP Approach to System Identification with Roughly Quantized Data .....                                    | 2800 |
| <i>Katsumi Konishi</i>                                                                                              |      |
| Direct Adaptive Controller for Nonaffine Discrete-Time Systems Based on Fuzzy Rules Emulated Networks .....         | 2806 |
| <i>Chidentree Treesatayapun</i>                                                                                     |      |
| Survey on performance analysis of embedded and conventional networks. ....                                          | 2812 |
| <i>Abraham Jair Lopez Villalvazo, Mario Siller</i>                                                                  |      |
| Using Deadband in Packet-Based Networked Control Systems .....                                                      | 2818 |
| <i>Yun-Bo Zhao, Guo-Ping Liu, David Rees</i>                                                                        |      |

## **T3-Rm14**

### **Discrete Event Systems and Petri Nets I**

|                                                                                                                                                      |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Modeling and Analyzing Resource-Constrained Business Processes .....                                                                                 | 2824 |
| <i>Cesar A. L. Oliveira, Ricardo M. F. Lima, Thiago Andre, Hajo A. Reijers</i>                                                                       |      |
| Performance Evaluation of Service-Oriented Architecture through Stochastic Petri Nets .....                                                          | 2831 |
| <i>Marcelo Teixeira, Ricardo M. F. Lima, Cesar A. L. Oliveira, Paulo Romero Martins Maciel</i>                                                       |      |
| Synthetic workload generation for capacity planning of virtual server environments ....                                                              | 2837 |
| <i>Hugo Estanislau Soares Galindo, Wagner Medeiros Santos, Paulo Romero Martins Maciel, Bruno Silva, Sergio Mario Lins Galdino, Jose Paulo Pires</i> |      |
| Qualitative Analysis of Workflow nets using Linear Logic: Soundness Verification .....                                                               | 2843 |
| <i>Ligia Maria Soares Passos, Stephane Julia</i>                                                                                                     |      |
| A Hybrid DVS Scheduling Approach for Hard Real-Time Systems .....                                                                                    | 2848 |
| <i>Eduardo Tavares, Pedro Dallegrave, Bruno Silva, Gustavo Callou, Bruno Nogueira, Paulo Maciel</i>                                                  |      |
| A Decomposition Method for Optimal Firing Sequence Problems for First-order Hybrid Petri Nets .....                                                  | 2854 |
| <i>Nishi Tatsushi, Shimatani Kenichi, Inuiguchi Masahiro</i>                                                                                         |      |

## T4-Rm1

### Kansei (sense/emotion)

|                                                                                                                          |      |
|--------------------------------------------------------------------------------------------------------------------------|------|
| Emotion Generation System based on MaC Model with Neural Networks .....                                                  | 2860 |
| <i>Kazuki Hirozawa, Yuko Osana</i>                                                                                       |      |
| Comparison of Sensibilities of Japanese and Koreans in Recognizing Emotions from Speech by using Bayesian Networks ..... | 2866 |
| <i>Jangsik Cho, Shohei Kato, Hidenori Itoh</i>                                                                           |      |
| Estimation of thermal sensation using human peripheral skin temperature .....                                            | 2872 |
| <i>Kanako Nakayama, Takuji Suzuki, Kenichi Kameyama</i>                                                                  |      |
| Mood-transition-based Emotion Generation Model for the Robots Personality .....                                          | 2878 |
| <i>Chika Itoh, Shohei Kato, Hidenori Itoh</i>                                                                            |      |
| Facial Expression Spatial Charts for Representing of Dynamic Diversity of Facial Expressions .....                       | 2884 |
| <i>Hirokazu Madokoro, Kazuhito Sato, Akira Kawasumi, Sakura Kadowaki</i>                                                 |      |

## T4-Rm2

### Human Performance Modeling II

|                                                                                                                             |      |
|-----------------------------------------------------------------------------------------------------------------------------|------|
| An Informatic Rationale for the Speed-Accuracy Trade-Off .....                                                              | 2890 |
| <i>William Soukoreff, Scott MacKenzie</i>                                                                                   |      |
| A Cognitive Model of Visual Path Planning in a Multi-Robot Control System .....                                             | 2897 |
| <i>David Reitter, Christian Lebiere, Michael Lewis, Huadong Wang, Zheng Ma</i>                                              |      |
| Enhanced Operator Function Model: A Generic Human Task Behavior Modeling Language .....                                     | 2904 |
| <i>Matthew Lee Bolton, Ellen J. Bass</i>                                                                                    |      |
| A Novel and Robust Algorithm to Model Handwriting Skill for Haptic Applications ...                                         | 2912 |
| <i>Govindarajan Srimathveeravalli, Xinyan Li, Puneet Singla, Thenkurussi Kesavadas</i>                                      |      |
| Modeling and Defining Expert Handwriting Behavior .....                                                                     | 2918 |
| <i>Govindarajan Srimathveeravalli, Ashirwad Joseph Chowriappa, Neeraja Subrahmanian, Ann Bisantz, Thenkurussi Kesavadas</i> |      |

## T4-Rm3

### Image Sharing and Retrieval

|                                                                                     |      |
|-------------------------------------------------------------------------------------|------|
| Extracting Spatial Semantics in Association Rules for Ocean Image Retrieval .....   | 2924 |
| <i>Yo-Ping Huang, Li-Jen Kao, Frode Eika Sandnes</i>                                |      |
| Metadata Miner Assisted Integrated Information Retrieval for Argo Ocean Data .....  | 2930 |
| <i>Yue-Shan Chang, Hsiang Tai Cheng, Hsuan Jen Lai</i>                              |      |
| Automatic Visual Feature Extraction for Mandarin Audio-Visual Speech Recognition .. | 2936 |
| <i>Tsang-Long Pao, Wen-Yuan Liao, Tsan-Nung Wu, Ching-Yi Lin</i>                    |      |
| Efficient Entropy-based Features Selection for Image Retrieval .....                | 2941 |
| <i>Yo-Ping Huang, Tsun-Wei Chang, Frode Eika Sandnes</i>                            |      |
| Design and Implementation of Heterogeneous Wireless Gateway .....                   | 2947 |
| <i>Hung-Chi Chu, Shih-Lung Chang, Ying-Hsiang Liao, Yan-Ting Pan</i>                |      |

## T4-Rm4

### Granular Computing II

|                                                                                                            |      |
|------------------------------------------------------------------------------------------------------------|------|
| On Definability of Sets in Dominance-Based Approximation Space .....                                       | 2953 |
| <i>Chien-Chung Chan, Fengming Michael Chang</i>                                                            |      |
| Detecting Temporal Patterns of Technical Phrases by using Importance Indices in a Research Documents ..... | 2959 |
| <i>Hidenao Abe, Shusaku Tsumoto</i>                                                                        |      |
| Granular Computing and Flow Analysis on Discretionary Access Control:Solving the Propagation Problem ..... | 2965 |
| <i>Tsau-Young Lin, Jene Pan</i>                                                                            |      |
| Numeric Data to Information Granules and Computing with Words .....                                        | 2972 |
| <i>Stuart H Rubin, Witold Pedrycz</i>                                                                      |      |
| Feature Selection and Granular SVM Classification for Protein Arginine Methylation Identification .....    | 2979 |
| <i>Zejin Ding, Yan-Qing Zhang, Yujun George Zheng</i>                                                      |      |

## T4-Rm5

### TBD

## T4-Rm6

### Image Processing/Pattern Recognition VIII

|                                                                                                                  |      |
|------------------------------------------------------------------------------------------------------------------|------|
| Ripe Tomato Extraction For A Harvesting Robotic System .....                                                     | 2984 |
| <i>Hongpeng Yin, Yi Chai, Simon X. Yang, Gauri S. Mittal</i>                                                     |      |
| A 3D Self-positioning Method for Wireless Sensor Nodes Based on Linear FMCW and TFDA .....                       | 2990 |
| <i>Lichuan Liu, Manli E, Zhigang Wang, Mengchu Zhou</i>                                                          |      |
| A Grid-Based Clustering Method For Mining Frequent Trips From Large-Scale, Event-Based Telematics Datasets ..... | 2996 |
| <i>Qing Cao, Bouchra Bouqata, Patricia D Mackenzie, Daniel John Messier, Joseph James Salvo</i>                  |      |
| A multiresolution flow based multiphase image segmentation .....                                                 | 3002 |
| <i>Celia A.Z. Barcelos, Emilio Zorzo Barcelos, Jose A. Cuminato</i>                                              |      |
| Unsupervised Classification Of Large Dimensional Imagery Using RAG/SAG-Based Merging .....                       | 3007 |
| <i>Sang Hoon Lee</i>                                                                                             |      |

## T4-Rm7

### Fuzzy Systems and Their Applications II

|                                                                                                            |      |
|------------------------------------------------------------------------------------------------------------|------|
| SOS-based Stability Analysis of Polynomial Fuzzy Control Systems via Polynomial Membership Functions ..... | 3011 |
| <i>Mohammad Narimani, Hak-Keung Lam</i>                                                                    |      |
| An Experimental Adaptive Fuzzy Controller for Differential Games .....                                     | 3017 |
| <i>Sidney Givigi, Howard M. Schwartz, Xiaosong Lu</i>                                                      |      |
| Multisensor data fusion for OD matrix estimation .....                                                     | 3024 |
| <i>Krystyna Biletska, Marie-Helene Masson, Sophie Midenet, Thierry Denoeux</i>                             |      |

|                                                                                                                            |      |
|----------------------------------------------------------------------------------------------------------------------------|------|
| Sliding-Mode-Based Fuzzy CMAC Controller Design for a Class of Uncertain Nonlinear System .....                            | 3030 |
| <i>Chun-Sheng Chen</i>                                                                                                     |      |
| Dynamic Fuzzy Controller Based Multilayered Architecture for Extended Battery Life in Mobile Handheld Devices .....        | 3035 |
| <i>Apurva Narayan, Tamanna Srivastava</i>                                                                                  |      |
| Relaxed LMI Based designs for Takagi Sugeno Fuzzy Regulators and Observers Poly-Quadratic Lyapunov Function approach ..... | 3041 |
| <i>Ahmad Hussien Besheer, H.R. Emar</i>                                                                                    |      |

## **T4-Rm8**

### **Computational Intelligence IV**

|                                                                                                                               |      |
|-------------------------------------------------------------------------------------------------------------------------------|------|
| Evolutionary Synthesis of Nand Logic: Dissecting a Digital Organism .....                                                     | 3047 |
| <i>Winston J. Ewert, William A Dembski, Robert J. Marks</i>                                                                   |      |
| 3D Building Reconstruction from LiDAR Data .....                                                                              | 3054 |
| <i>Henry Chu, Lu Wang</i>                                                                                                     |      |
| An Improved Reduction Algorithm With Deeply Pipelined Operators .....                                                         | 3060 |
| <i>Yi-Gang Tai, Dan Lo, Kleanthis Psarris</i>                                                                                 |      |
| An Integrated Intelligent System for Estimating and Updating a Large-size Matrix ....                                         | 3066 |
| <i>Ting Yu</i>                                                                                                                |      |
| A Multiagent Architecture for solving Combinatorial Optimization Problems through Metaheuristics .....                        | 3071 |
| <i>Filipe Costa Fernandes, Sergio Ricardo Souza, Maria Amelia Lopes Silva, Henrique Elias Borges, Fabio Fernandes Ribeiro</i> |      |
| Correlation-based Feature Ranking for Online Classification .....                                                             | 3077 |
| <i>Osman Hassab Elgawi</i>                                                                                                    |      |

## **T4-Rm9**

### **Machine Learning IV**

|                                                |      |
|------------------------------------------------|------|
| On Semi-Supervised Learning and Sparsity ..... | 3083 |
| <i>Alexander Balinsky, Helen Balinsky</i>      |      |

|                                                                                                |      |
|------------------------------------------------------------------------------------------------|------|
| A Reinforcement Learning Model Using Macro-actions in Multi-task Grid-World Problems .....     | 3088 |
| <i>Seiichi Ozawa, Hiroshi Onda</i>                                                             |      |
| Predicting Stock Trends through Technical Analysis and Nearest Neighbor Classification .....   | 3094 |
| <i>Lamartine Almeida Teixeira, Adriano L. I. Oliveira</i>                                      |      |
| Online, Self-Supervised Vision-Based Terrain Classification in Unstructured Environments ..... | 3100 |
| <i>Peyman Moghadam, Wijerupage Sardha Wijesoma</i>                                             |      |
| Violent Web images classification based on MPEG7 color descriptors .....                       | 3106 |
| <i>Radhouane Guermazi, Mohamed Hammami, Abdelmajid Ben Hamadou</i>                             |      |

## **T4-Rm10**

### **Signal and Image Processing**

|                                                                                                            |      |
|------------------------------------------------------------------------------------------------------------|------|
| Noise Resilient Image Fusion Based on Orthogonal Matching Pursuit .....                                    | 3112 |
| <i>Bin Liao, Lixiong Liu</i>                                                                               |      |
| A Shadow Detection Method for Remote Sensing Images Using Affinity Propagation Algorithm .....             | 3116 |
| <i>Xinyu Chen, Huaiping Xia, Ping Guo</i>                                                                  |      |
| Investigating Visual Feature Extraction Methods for Image Annotation .....                                 | 3122 |
| <i>Rukun Hu, Shuai Shao, Ping Guo</i>                                                                      |      |
| Multi focus Image Fusion Based on Muti scheme .....                                                        | 3128 |
| <i>Lixiong Liu, Bin Liao</i>                                                                               |      |
| Correlation between stimulated emotion extracted from EEG and its Manifestation on Facial Expression ..... | 3132 |
| <i>A. Chakraborty, P. Bhowmik, S. Das, A. Halder, Amit Konar, A. K. Nagar</i>                              |      |

## **T4-Rm11**

### **Collaborative Wireless Sensor Networks**

|                                                                                                    |      |
|----------------------------------------------------------------------------------------------------|------|
| Dual-Swarm Features and Its Challenges for System of Sensor Networks and Multi Mobile Robots ..... | 3138 |
| <i>Wenfeng Li</i>                                                                                  |      |

|                                                                                                           |      |
|-----------------------------------------------------------------------------------------------------------|------|
| Platform-independent development of collaborative Wireless Body Sensor Network applications: SPINE2 ..... | 3144 |
| <i>Fabio Luigi Bellifemine, Giancarlo Fortino, Antonio Guerrieri, Roberta Giannantonio</i>                |      |

|                                                                                             |      |
|---------------------------------------------------------------------------------------------|------|
| Collaborative Signal and Information Processing in Wireless Sensor Networks: a Review ..... | 3151 |
| <i>Mert Bal, Weiming Shen, Hamada Ghenniwa</i>                                              |      |

## **T4-Rm12**

### **Robotic Systems III**

|                                                                                                  |      |
|--------------------------------------------------------------------------------------------------|------|
| Generating Locomotion for Biped Robots based on the Dynamic Passivization of Joint Control ..... | 3157 |
| <i>Minoru Ishida, Shohei Kato, Masayoshi Kanoh, Hidenori Itoh</i>                                |      |

|                                                   |      |
|---------------------------------------------------|------|
| Underwater Swarm Robotics Consensus Control ..... | 3163 |
| <i>Matthew A. Joordens, Mo Jamshidi</i>           |      |

|                                 |      |
|---------------------------------|------|
| Termination of Human Gait ..... | 3169 |
| <i>Prachuab Vanitchatchavan</i> |      |

|                                                                                        |      |
|----------------------------------------------------------------------------------------|------|
| Multi-rate operational space control of compliant motion in robotic manipulators ..... | 3175 |
| <i>Dung Ngoc Vuong, Marcelo H. Ang Jr, Tao Ming Lim, Ser Yong Lim</i>                  |      |

|                                                                                 |      |
|---------------------------------------------------------------------------------|------|
| Adaptive Critic based Redundancy Resolution scheme for Robot Manipulators ..... | 3181 |
| <i>Laxmidhar Behera, Prem Kumar P., Girijesh Prasad</i>                         |      |

|                                                                                                                |      |
|----------------------------------------------------------------------------------------------------------------|------|
| Robust Tracking Control of an Underactuated Quadrotor Aerial-Robot Based on a Parametric Uncertain Model ..... | 3187 |
| <i>DongBin Lee, Timothy C. Burg, Darren Dawson, Dule Shu, Bin Xian, Enver Tatlicioglu</i>                      |      |

## **T4-Rm13**

### **Enterprise Information Systems I**

|                                                                      |      |
|----------------------------------------------------------------------|------|
| A customer network value model based on complex network theory ..... | 3193 |
| <i>Rong Liu, Jun Ma, Jiayin Qi, Bin Wu, Chen Wang</i>                |      |

|                                                                         |      |
|-------------------------------------------------------------------------|------|
| An Experimental Study on Four Models of Customer Churn Prediction ..... | 3199 |
| <i>Chao Zhu, Jiayin Qi, Chen Wang</i>                                   |      |

|                                                                                                                                                     |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|------|
| The Study on Feature Selection in Customer Churn Prediction Modeling .....                                                                          | 3205 |
| <i>Yin Wu, Jiayin Qi, Chen Wang</i>                                                                                                                 |      |
| Game model on the information competition in the environmental system .....                                                                         | 3211 |
| <i>Jianjun Huai, Xuexi Huo</i>                                                                                                                      |      |
| A novel and convenient variable selection method for choosing effective input variables for telecommunication customer churn prediction model ..... | 3217 |
| <i>Jiayin Qi, Yuanquan Li</i>                                                                                                                       |      |

## **T4-Rm14**

### **Discrete Event Systems and Petri Nets II**

|                                                                                                                                    |      |
|------------------------------------------------------------------------------------------------------------------------------------|------|
| Aspects of the Safety Analysis of an On-board Automatic Train Operation Supervisor .                                               | 3223 |
| <i>Gary Alan Bundell</i>                                                                                                           |      |
| Formal Modeling and Synthesis of State-Transferring Communication among Decentralized Supervisors for Discrete-Event Systems ..... | 3231 |
| <i>Amin Mannani, Peyman Gohari</i>                                                                                                 |      |
| Formal Modeling and Synthesis of Event-Transferring Communication among Decentralized Supervisors for Discrete-Event Systems ..... | 3237 |
| <i>Amin Mannani, Peyman Gohari</i>                                                                                                 |      |
| Game Theoretic Validation of Air Combat Simulation Models .....                                                                    | 3243 |
| <i>Jrika Poropudas, Kai Matti Virtanen</i>                                                                                         |      |
| A Conceptual Model for a Value-Driven Learning Healthcare System .....                                                             | 3251 |
| <i>Ying Tang, Lenard Pogach</i>                                                                                                    |      |
| A consistency based approach to deal with modeling errors and process failures in D.E.S                                            | 3257 |
| <i>Carmen lopez varela, Audine Subias, Michel Combacau</i>                                                                         |      |

## **W1-Rm1**

### **Visual Information Processing I**

|                                                                          |      |
|--------------------------------------------------------------------------|------|
| Foreground Segmentation via Sparse Representation .....                  | 3263 |
| <i>Bin Shen, Yu-Jin Zhang</i>                                            |      |
| SwiftPostA Vision-based Fast Postal Envelope Identification System ..... | 3268 |
| <i>Xue Gao, Lianwen Jin</i>                                              |      |

|                                                                                   |      |
|-----------------------------------------------------------------------------------|------|
| Texture Representation in AAM using Gabor Wavelet and Local Binary Patterns ..... | 3274 |
| <i>Ya Su, Dacheng Tao, Xuelong Li, Xinbo Gao</i>                                  |      |
| A Real-Time Ellipse Detection Based on Edge Grouping .....                        | 3280 |
| <i>Thanh Minh Nguyen, Siddhant Ahuja, Q.M. Jonathan Wu</i>                        |      |
| Unsupervised Human Motion Analysis Using Automatic Label Trees .....              | 3287 |
| <i>Kui Jia, Wuyuan Xie</i>                                                        |      |

## W1-Rm2

### Large-Scale/Complex Syst, Syst of Sys I

|                                                                                                             |      |
|-------------------------------------------------------------------------------------------------------------|------|
| An XML Based System of Systems Agent-in-the-Loop Simulation Framework using Discrete Event Simulation ..... | 3293 |
| <i>Matthew R Hosking, Ferat Sahin</i>                                                                       |      |
| The Conceptagon: A Framework for Systems Thinking and Systems Practice .....                                | 3299 |
| <i>Brian Sauser, John Boardman, Larry John, Robert Edson</i>                                                |      |
| Transporting Sensor Data over Radio Networks in a System of Systems: Network and Bandwidth Planning .....   | 3305 |
| <i>Robert Edward Donnelly</i>                                                                               |      |
| Time Series Data Analysis Using Fractional Calculus Concepts and Fractal Analysis ...                       | 3311 |
| <i>Daniel William Repperger, K. A. Farris, C. C. Barton, S. Tebbens</i>                                     |      |

## W1-Rm3

### Fault Monitoring and Diagnosis I

|                                                                                                                 |      |
|-----------------------------------------------------------------------------------------------------------------|------|
| New delay-dependent conditions for H-infinity filtering of nonlinear systems with neutral-type time-delay ..... | 3316 |
| <i>Salim Ibrir</i>                                                                                              |      |
| Active incipient fault detection with more than two simultaneous faults .....                                   | 3322 |
| <i>Stephen La Vern Campbell, Martene Fair</i>                                                                   |      |
| Performability Evaluation of EFT Systems using Expolynomial Stochastic Models .....                             | 3328 |
| <i>Erica Teixeira Gomes Sousa, Paulo Romero Martins Maciel, Carlos Julian Menezes Araujo</i>                    |      |

|                                                                                                                                         |      |
|-----------------------------------------------------------------------------------------------------------------------------------------|------|
| Diagnosis of Hybrid Systems: Part 1- Diagnosability .....                                                                               | 3334 |
| <i>Rasul Mohammadi, Shahin Hashtrudi-Zad, Khashayar Khorasani</i>                                                                       |      |
| Diagnosis of Hybrid Systems: Part 2- Residual Generator Selection and Diagnosis in the Presence of Unreliable Residual Generators ..... | 3340 |
| <i>Rasul Mohammadi, Shahin Hashtrudi-Zad, Khashayar Khorasani</i>                                                                       |      |

## W1-Rm4

### Intelligent Transportation Systems

|                                                                                                                                 |      |
|---------------------------------------------------------------------------------------------------------------------------------|------|
| High-Order Hopfield-based Neural Network for Nonlinear System Identification .....                                              | 3346 |
| <i>Wang Chi-Hsu, Kun-Neng Hung</i>                                                                                              |      |
| Real-time Vision-based Multiple Vehicle Detection and Tracking for Nighttime Traffic Surveillance .....                         | 3352 |
| <i>Yen-Lin Chen, Bing-Fei Wu, Chung-Jui Fan</i>                                                                                 |      |
| Analysis and Suppression of Torsional Vibrations for the Permanent Magnet Synchronous Motor-Load System .....                   | 3359 |
| <i>Stone Cheng, Shiang-Chih Fu</i>                                                                                              |      |
| Impacts of Tradable Emission Permits on Oligopoly Electricity Market Production under Complete and Incomplete Information ..... | 3365 |
| <i>Hui Gao, Fushuan Wen, Iain MacGill</i>                                                                                       |      |
| Control of Uncertain Active Suspension System with Anti-lock Braking system Using Fuzzy Neural Controllers .....                | 3371 |
| <i>Wei-Yen Wang, M. C. Chen, Yi-Hsing Chien, Tsu-Tian Lee</i>                                                                   |      |

## W1-Rm5

### Neural Networks and Their Applications I

|                                                                                                                                                                                              |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Sensory systems as cybernetic systems that require awareness of alternatives to interact with the world: analysis of the brain-receptor loop in Norwich's Entropy Theory of Perception ..... | 3377 |
| <i>Lance Nizami</i>                                                                                                                                                                          |      |
| Data Acquisition and Modeling of 3D Deformable Objects using Neural Networks .....                                                                                                           | 3383 |
| <i>Ana-Maria Cretu, Emil M. Petriu, Pierre Payeur</i>                                                                                                                                        |      |

|                                                                                                                                      |      |
|--------------------------------------------------------------------------------------------------------------------------------------|------|
| Speed-up of the R4-rule for Distance-Based Neural Network Learning .....                                                             | 3389 |
| <i>Qiangfu Zhao, Naoki Tominaga</i>                                                                                                  |      |
| Structural Enhanced Information to Detect Features in Competitive Learning .....                                                     | 3395 |
| <i>Ryotaro Kamimura</i>                                                                                                              |      |
| Levenberg-Marquardt-based OBS Algorithm using Adaptive Pruning Interval for System Identification with Dynamic Neural Networks ..... | 3402 |
| <i>Christian Endisch, Peter Stolze, Peter Endisch, Christoph Hackl, Ralph Kennel</i>                                                 |      |

## W1-Rm6

### Machine Vision I

|                                                                                                                     |      |
|---------------------------------------------------------------------------------------------------------------------|------|
| Designing Eigenspace Manifolds: With Application to Object Identification and Pose Estimation .....                 | 3409 |
| <i>Randy C. Hoover, Anthony A. Maciejewski, Rodney G. Roberts</i>                                                   |      |
| An Illustration of Eigenspace Decomposition for Illumination Invariant Pose Estimation .....                        | 3415 |
| <i>Randy C. Hoover, Anthony A. Maciejewski, Rodney G. Roberts, Ryan P. Hoppal</i>                                   |      |
| A Robust Multi-class Traffic Sign Detection and Classification System using Asymmetric and Symmetric features ..... | 3421 |
| <i>Jialin Jiao, Zhong Zheng, Jungme Park, Yi Murphey, Yun Luo</i>                                                   |      |
| Online Evolutionary Context-Aware Classifier Ensemble Framework For Object Recognition .....                        | 3428 |
| <i>Zhan Yu, Mi Young Nam, Phill Kyu Rhee</i>                                                                        |      |
| A Density-Based Approach for Effective Pedestrian Counting at Bus Stops .....                                       | 3434 |
| <i>Guillermo Arturo Garcia-Bunster, Miguel Torres-Torriti</i>                                                       |      |
| Screening and Manipulating Brain Medical Images on Handheld Devices .....                                           | 3440 |
| <i>Ali Almuntashri, Sos Agaian, T.S. Durrani</i>                                                                    |      |

## W1-Rm7

### Fuzzy Forecasting

|                                                                                                 |      |
|-------------------------------------------------------------------------------------------------|------|
| Temperature Prediction Based on Fuzzy Clustering and Fuzzy Rules Interpolation Techniques ..... | 3444 |
| <i>Shyi-Ming Chen, Yu-Chuan Chang</i>                                                           |      |

|                                                                                              |      |
|----------------------------------------------------------------------------------------------|------|
| A New Method to Forecast the TAIEX Based on Fuzzy Time Series .....                          | 3450 |
| <i>Shyi-Ming Chen, Chao-Dian Chen</i>                                                        |      |
| A New Method for Forecasting the TAIEX Based on High-Order Fuzzy Logical Relationships ..... | 3456 |
| <i>Shyi-Ming Chen, Chao-Dian Chen</i>                                                        |      |
| Forecasting of ozone concentration using frequency MA-OWA Model .....                        | 3461 |
| <i>Ching-Hsue Cheng, Sue-Fen Huang</i>                                                       |      |
| Forecasting electronic industry EPS Using an integrated ANFIS model .....                    | 3467 |
| <i>Ching-Hsue Cheng, Jia-Wei Hsu, Sue-Fen Huang</i>                                          |      |

## W1-Rm8

### Information Assurance & Intel. Multimedia Computation I

|                                                                                                                                            |      |
|--------------------------------------------------------------------------------------------------------------------------------------------|------|
| Implementation Of Digital Electronic Arithmetics And Its Application .....                                                                 | 3473 |
| <i>Khader Mohammad, Sos S. Agaian, Fred Hudson</i>                                                                                         |      |
| Efficient FPGA Implementation Of Convolution .....                                                                                         | 3478 |
| <i>Khader Mohammad, Sos S. Agaian</i>                                                                                                      |      |
| Generalized Fibonacci Numbers and Applications .....                                                                                       | 3484 |
| <i>Sarkis Agaian</i>                                                                                                                       |      |
| Digital Forensics: Electronic Evidence Collection, Examination and Analysis by Using Combine Moments in Spatial and Transform Domain ..... | 3489 |
| <i>Hani Saleh, Sos S. Agaian, Khader Mohammad</i>                                                                                          |      |
| Energy Efficient Swing signal generation circuits for clock distribution networks .....                                                    | 3495 |
| <i>Khader Mohammad, Bao Liu, Sos S. Agaian</i>                                                                                             |      |
| Novel Top-Down Approaches for Hierarchical Classification and Their Application to Automatic Music Genre Classification .....              | 3499 |
| <i>Carlos Nascimento Silla Junior, Alex Alves Freitas</i>                                                                                  |      |

## W1-Rm9

### Homeland Security

|                                                                        |      |
|------------------------------------------------------------------------|------|
| Delivery Volume Improvement for Planning Medication Distribution ..... | 3505 |
| <i>Jeffrey William Herrmann, Sara Lu, Kristen Schalliol</i>            |      |

|                                                                                     |      |
|-------------------------------------------------------------------------------------|------|
| Radioscopic Inspection of Cargo Containers with Megavoltage Energy Barriers .....   | 3510 |
| <i>Ajay K. Mandava, Lei Zhang, Emma E. Regentova, Zane Wilson, Gongyin Chen</i>     |      |
| Defensive Dissuasion in Security Risk Management .....                              | 3516 |
| <i>William L. McGill</i>                                                            |      |
| Node discovery in a networked organization .....                                    | 3522 |
| <i>Yoshiharu Maeno</i>                                                              |      |
| Tools for Enhancing Distributed, Asynchronous Collaboration in Army Operations .... | 3528 |
| <i>Alicia D Borgman, Philip Smith, Dustin Johnson</i>                               |      |

## W1-Rm10

### Decision Making and Management for Infrastructure Systems I

|                                                                                                                   |      |
|-------------------------------------------------------------------------------------------------------------------|------|
| Multi-objective optimization of water supply network rehabilitation .....                                         | 3534 |
| <i>Wenyan Wu, Xi Jin, Jinliang Gao</i>                                                                            |      |
| A hierarchical model and implementation architecture for road traffic control .....                               | 3540 |
| <i>Jos Vrancken, Jan van Schuppen, Michel dos Santos Soares, Frank Ottenhof</i>                                   |      |
| Emergency Coordination and Decision Making over Interconnected Power Systems ....                                 | 3545 |
| <i>Ettore Bompard, Tao Huang, Roberto Napoli</i>                                                                  |      |
| A non-iterative cascaded predictive control approach for control of irrigation canals ....                        | 3552 |
| <i>Rudy R. Negenborn, Akin Sahin, Zofia Lukszo, Bart De Schutter, Manfred Morari</i>                              |      |
| Traffic parameter estimation on motorway networks by combination of filtering techniques                          | 3558 |
| <i>Yubin Wang, Yufei Yuan, Jos Vrancken</i>                                                                       |      |
| Reinforcement Learning for Human-Machine Collaborative Optimization: Application in Ground Water Monitoring ..... | 3563 |
| <i>Meghna Babbar-Sebens, Snehasis Mukhopadhyay</i>                                                                |      |

## W1-Rm11

### Collaborative Virtual Workspaces in Design, Engineering, and Construction

|                                                                                                     |      |
|-----------------------------------------------------------------------------------------------------|------|
| Comparative Effectiveness of Mixed Reality Based Virtual Environments in Collaborative Design ..... | 3569 |
| <i>Xiangyu Wang, Phillip S. Dunston</i>                                                             |      |

|                                                                                                                                                  |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Spatial Faithful Display Groupware Model for Remote Design Collaboration .....                                                                   | 3575 |
| <i>Wang Wei, Xiangyu Wang, Jie Zhu</i>                                                                                                           |      |
| A Test-Bed for Localization and Tracking in Wireless Sensor Networks .....                                                                       | 3581 |
| <i>Mert Bal, Henry Xue, Weiming Shen, Hamada Ghenniwa</i>                                                                                        |      |
| A QoS Information Dissemination Service for SOA-based CSCW Applications .....                                                                    | 3587 |
| <i>Xiao Zheng, Junzhou Luo, Jiuxin Cao</i>                                                                                                       |      |
| Designing Together While Apart: The Role of Computer-Mediated Communication and Collaborative Virtual Environments on Design Collaboration ..... | 3593 |
| <i>Seunghyun Lee, Neta Ezer, Jon Sanford, Ellen Yi-Luen Do</i>                                                                                   |      |

## **W1-Rm12**

### **Robotic Systems IV**

|                                                                                  |      |
|----------------------------------------------------------------------------------|------|
| Dynamic modeling and control of the Omega-3 parallel manipulator .....           | 3599 |
| <i>Collins Folaranmi Adetu, Carl A. Moore, Rodney Glen Roberts</i>               |      |
| A Temporal Potential Function Approach For Path Planning in Dynamic Environments | 3605 |
| <i>Vamsikrishna Gopikrishna, Manfred Huber</i>                                   |      |
| A Versatile Toolbox for Studying Anthropomorphic Robot Hands .....               | 3612 |
| <i>Jorge Luis Nicho, Brent Nowak</i>                                             |      |
| Complete Coverage Path Planning for Cleaning Task using Multiple Robots .....    | 3618 |
| <i>Jeong Hee Lee, Beom-Hee Lee, Jeong-Sik Choi, Kong W. Lee</i>                  |      |
| Design of a Haptic Device for Teleoperation and Virtual Reality Systems .....    | 3623 |
| <i>Mehmet Ismet Can Dede, Ozgun Selvi Tunc, Yalkin Kant</i>                      |      |

## **W1-Rm13**

### **Enterprise Information Systems II**

|                                                                  |      |
|------------------------------------------------------------------|------|
| Unveiling Secrets of Successful Chinese Software Companies ..... | 3629 |
| <i>Yuanxun Gu, Yajiong Xue, Zhongdong Xiao</i>                   |      |
| Inference on heterogeneous e-marketplace activities .....        | 3634 |
| <i>Chin-Pang Che, Jingzhi Guo, Zhiguo Gong</i>                   |      |

|                                                                                               |      |
|-----------------------------------------------------------------------------------------------|------|
| Extracting Company Information from the Web .....                                             | 3640 |
| <i>Man I Lam, Zhiguo Gong, Jingzhi Guo</i>                                                    |      |
| Moving Multi-Object Tracking Algorithm Based on Wavelet Clustering and Frame Difference ..... | 3646 |
| <i>Li Zeng, Lida Xu</i>                                                                       |      |

## W1-Rm14

### Distributed, Complex Software Systems

|                                                                                                 |      |
|-------------------------------------------------------------------------------------------------|------|
| JigDFS for Implementing Secure Container Communities .....                                      | 3651 |
| <i>Jiang Bian, Remzi Seker, Srinu Ramaswamy</i>                                                 |      |
| Beaver Algorithm for Network Security and Optimization: Preliminary Report .....                | 3657 |
| <i>Aladdin Ayesb</i>                                                                            |      |
| A multi agent modeling approach for an adaptive regulation in large scale complex systems ..... | 3663 |
| <i>Alain Cardon, Mhamed Itmi</i>                                                                |      |
| Secured Networking by Sandboxing LINUX 2.6 .....                                                | 3669 |
| <i>Hrushikesba Mohanty, Martha VenkataSwamy, Pillalamarri Thilak, Ramaswamy Srinivasan</i>      |      |
| Towards a social responsible agents .....                                                       | 3675 |
| <i>Waled Haza Alshabi, M. Itmi, S. Romaswamy, H. Abdulrab</i>                                   |      |

## W2-Rm1

### Visual Information Processing II

|                                                                                           |      |
|-------------------------------------------------------------------------------------------|------|
| An Improved Canny Edge Detection Application for Asphalt Concrete .....                   | 3683 |
| <i>Sos S. Agaian, Ali Almontashri, A. T. Papagiannakis</i>                                |      |
| Incremental Learning of Weighted Tensor Subspace for Visual Tracking .....                | 3688 |
| <i>Jing Wen, Xinbo Gao, Xuelong Li, Dacheng Tao</i>                                       |      |
| Improving Security of an Image Encryption Algorithm based on Chaotic Circular Shift ..... | 3694 |
| <i>Weihai Li, Yuan Yuan</i>                                                               |      |
| Manifold Elastic Net for Sparse Learning .....                                            | 3699 |
| <i>Tianyi Zhou, Dacheng Tao</i>                                                           |      |

|                                                                                               |      |
|-----------------------------------------------------------------------------------------------|------|
| Depth Map Estimation Using Exponentially Decaying Focus Measure Based on Susan Operator ..... | 3705 |
| <i>Pankajkumar Mendapara, Rashid Minhas, Jonathan Wu</i>                                      |      |
| Signature-Driven Multiple Visual Target Tracking .....                                        | 3709 |
| <i>Shuyan Sun, Zhipei Huang , Sheng Jiang, Jiankang Wu, Zhiqiang Zhang</i>                    |      |

## W2-Rm2

### Large-Scale/Complex Syst, Syst of Sys II

|                                                                                                                                                     |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Understanding Web Service Discovery Goals .....                                                                                                     | 3714 |
| <i>Eyhab Al-Masri, H. Qusay Mahmoud</i>                                                                                                             |      |
| Opportunities for Innovation in a System of Systems Framework .....                                                                                 | 3720 |
| <i>Gary T. Anderson</i>                                                                                                                             |      |
| Distributed Optimization for Predictive Control with Input and State Constraints: Preliminary Theory and Application to Urban Traffic Control ..... | 3726 |
| <i>Eduardo Camponogara, Helton Femando Scherer, Leonardo Vila Moura</i>                                                                             |      |
| An Analysis of the History of Classical Software Development and Agile Development .                                                                | 3733 |
| <i>Armin Eberlein, Li Jiang</i>                                                                                                                     |      |
| Model Based Decision Support for Creation And Operation of Sustainable Infrastructure                                                               | 3739 |
| <i>Chris Davis, Igor Nikolic, Emile J.L. Chappin, Gerard P.J. Dijkema</i>                                                                           |      |

## W2-Rm3

### Fault Monitoring and Diagnosis II

|                                                                                                    |      |
|----------------------------------------------------------------------------------------------------|------|
| Data Driven Anomaly detection via Symbolic Identification of Complex Dynamical Systems .....       | 3745 |
| <i>Subhadeep Chakraborty, Eric Keller, Asok Ray</i>                                                |      |
| Identification of domestic water consumption in a house based on fuzzy clustering algorithms ..... | 3751 |
| <i>Ruben Ruelas, M. Adriana Corona-Nakamura, B. Ojeda-Magana, D. W. Carr Finch</i>                 |      |
| Examining Gyroscopes for 3-D Position Tracking in a Non-Destructive Evaluation System              | 3757 |
| <i>Ray Bachnak, Andres Rubio, Jaime Garcia, Sofia Maldonado, Abel Mdellin</i>                      |      |

|                                                                                      |      |
|--------------------------------------------------------------------------------------|------|
| Design and Development of High voltage Scheme for a Crowbar in RF Heating .....      | 3763 |
| <i>Himanshu Kantilal Patel, Deep Shah, Atman Shah, Mauli Thacker</i>                 |      |
| Morphological filtering assisted field-pipeline small leakage detection .....        | 3769 |
| <i>Han Li, De-Yun Xiao, Xiang Zhao</i>                                               |      |
| A Sensor Placement Measure for Impact Detection in Structural Health Monitoring .... | 3775 |
| <i>Arsen Melkonyan, Akopian David, Philip Chen</i>                                   |      |

## W2-Rm4

### Media Computing

|                                                                                                               |      |
|---------------------------------------------------------------------------------------------------------------|------|
| A Texture Energy Measurement Technique for 3D Volumetric Data .....                                           | 3779 |
| <i>Motofumi Suzuki, Yoshitomo Yaginuma, Haruo Kodama</i>                                                      |      |
| Classification of 3D Models for the 3D Animation Environments .....                                           | 3786 |
| <i>Yuesheng He, Yuanyan Tang</i>                                                                              |      |
| Scalable FFT Architecture vs. Multiple Pipeline FFT Architectures Hardware Implemen-<br>tation and Cost ..... | 3792 |
| <i>Adnan Suleiman, Adel Hussein, Khaldoun Bataineh, David Akopian</i>                                         |      |
| An Efficient Method for Early Detecting All-Zero Quantized DCT Coefficients for<br>H.264/AVC .....            | 3797 |
| <i>Peng Wu, Chuangbai xiao, Shoudao Wang, Mu Ling</i>                                                         |      |

## W2-Rm5

### Neural Networks and Their Applications II

|                                                                                                                          |      |
|--------------------------------------------------------------------------------------------------------------------------|------|
| A Neural Network Algorithm for Detecting Invisible Concrete Surface Cracks in Near-field<br>Millimeter-wave Images ..... | 3801 |
| <i>Soichi Oka, Shoji Mochizuki, Hiroyoshi Togo, Naoya Kukutsu</i>                                                        |      |
| Realization of Reinforcement Learning using Multi-Winners KFM Associative Memory                                         | 3806 |
| <i>Takahiro Ikeya, Yuko Osana</i>                                                                                        |      |
| Variable-Sized KFM Associative Memory with Refractoriness based on Area Representa-<br>tion .....                        | 3812 |
| <i>Tomohisa Imabayashi, Yuko Osana</i>                                                                                   |      |

|                                                                                                                       |      |
|-----------------------------------------------------------------------------------------------------------------------|------|
| Towards Autonomous Self-localization of Small Mobile Robots using Reservoir Computing and Slow Feature Analysis ..... | 3818 |
| <i>Eric A Antonelo, Benjamin Schrauwen</i>                                                                            |      |
| Associative Memories with Multi-Valued Cellular Neural Networks and Its Application to Disease Diagnosis .....        | 3824 |
| <i>Takuma Akiduki, Zhong Zhang, Takashi Imamura, Tetsuo Miyake</i>                                                    |      |

## **W2-Rm6**

### **Machine Vision II**

|                                                                                                          |      |
|----------------------------------------------------------------------------------------------------------|------|
| The Application of Simulated Annealing to a Map Seeking Circuit .....                                    | 3830 |
| <i>Sean Martin, Pedro Rodriguez, Patricia Murphy</i>                                                     |      |
| Gaze Tracking - A Sclera Recognition Approach .....                                                      | 3836 |
| <i>Jim Parker, Ai Duong</i>                                                                              |      |
| A Fast Feature Extraction in Object Recognition Using Parallel processing on CPU and GPU .....           | 3842 |
| <i>Junchul Kim, Xuenan Cui, Eunsoo Park, Hakil Kim, William A. Gruver</i>                                |      |
| A New 3D Representation and Compression Algorithm for Non-Rigid Moving Objects using Affine-Octree ..... | 3848 |
| <i>Youyou Wang, Guilherme Nelson DeSouza</i>                                                             |      |
| Fuzzy Object retrieval by using histogram of fuzzy Allen relations .....                                 | 3854 |
| <i>Nadeem Salamat, El-hadi Zahzah</i>                                                                    |      |

## **W2-Rm7**

### **Hybrid models of NN, Fuzzy Sys & Evolutionary Computing I**

|                                                                                                                        |      |
|------------------------------------------------------------------------------------------------------------------------|------|
| Fuzzy Classification Rule Mining Based on Genetic Network Programming Algorithm. ....                                  | 3860 |
| <i>Karla Taboada, Shingo Mabu, Eloy Gonzales, Shimada Kaoru, Kotaro Hirasawa</i>                                       |      |
| Optimizing Fuzzy Membership Functions Using Particle Swarm Algorithm .....                                             | 3866 |
| <i>Elijah Ehiagwina Omizegba, Adebayo E Gbajah</i>                                                                     |      |
| Non-rigid body Object Tracking using Fuzzy Neural System based on Multiple ROIs and Adaptive Motion Frame Method ..... | 3871 |
| <i>Hyunsoo Lee, Amarnath Banerjee</i>                                                                                  |      |

|                                                                                      |      |
|--------------------------------------------------------------------------------------|------|
| Fuzzy Logic Control Implementation of Rectilinear Plant with Inverted Pendulum ..... | 3877 |
| <i>Daniel Cox, Harold Rivera</i>                                                     |      |

|                                                                                             |      |
|---------------------------------------------------------------------------------------------|------|
| Technologies toward Thermal Comfort-based and Energy-efficient HVAC Systems: A Review ..... | 3883 |
| <i>Wenqi Guo, Mengchu Zhou</i>                                                              |      |

## W2-Rm8

### Optimization I

|                                                                                                                       |      |
|-----------------------------------------------------------------------------------------------------------------------|------|
| Multi-Routes Algorithm using Temperature Control of Boltzmann Distribution in Q value-based Dynamic Programming ..... | 3889 |
| <i>Shanqing Yu, Shingo Mabuchi, Manoj Kanta Mainali, Shinji Eto, Kaoru Shimada, Kotaro Hirasawa</i>                   |      |

|                                                                              |      |
|------------------------------------------------------------------------------|------|
| Improved Catfish Particle Swarm Optimization with Embedded Chaotic Map ..... | 3895 |
| <i>Li-Yeh Chuang, Sheng-Wei Tsai, Cheng-Hong Yang</i>                        |      |

|                                                                                                                                           |      |
|-------------------------------------------------------------------------------------------------------------------------------------------|------|
| Regrouping Particle Swarm Optimization: A New Global Optimization Algorithm with Improved Performance Consistency Across Benchmarks ..... | 3901 |
| <i>George I. Evers, Mounir Ben Ghalia</i>                                                                                                 |      |

|                                                                                                           |      |
|-----------------------------------------------------------------------------------------------------------|------|
| Constrained Optimization using the Lagrangian Method and the Improved Discrete Gradient Chaos Model ..... | 3909 |
| <i>Takashi Okamoto, Hironori Hirata</i>                                                                   |      |

|                                                                  |      |
|------------------------------------------------------------------|------|
| Particle Swarm Optimization for PID Tuning of a BLDC Motor ..... | 3917 |
| <i>Alberto A. Portillo, Michael T. Frye, Chunjiang Qian</i>      |      |

|                                                                                                                   |      |
|-------------------------------------------------------------------------------------------------------------------|------|
| Energy Saving Task Scheduling for Heterogeneous CMP System Based on Multi-objective Fuzzy Genetic Algorithm ..... | 3923 |
| <i>Lei Miao, Yong Qi, Di Hou, Chang-li Wu, Yue-hua Dai</i>                                                        |      |

## W2-Rm9

### Homeland Security II

|                                                         |      |
|---------------------------------------------------------|------|
| Responding to Disaster in Socio-technical Systems ..... | 3928 |
| <i>Ali Avni Cirik, David Mendonca</i>                   |      |

|                                                                                                                          |      |
|--------------------------------------------------------------------------------------------------------------------------|------|
| Project Ensayo: Designing a Virtual Emergency Operations Center .....                                                    | 3934 |
| <i>Cynthia Marie Nikolai, Michael Prietula, Irma Becerra Fernandez, Gregory Madey</i>                                    |      |
| Cognitive Barriers in Floods Risk Perception and Management: A Mental Modeling Framework and Illusatrative Example ..... | 3940 |
| <i>Igor Linkov, Matthew Wood, Todd Bridges, Daniel Kovacs, Sarah Thorne, Gordon Butte</i>                                |      |
| Advanced Registered Traveler Paradigm using Dynamic Risk Profile and Multimodal Biometrics .....                         | 3946 |
| <i>Pravir K. Chawdhry, Rui Pereira Silva</i>                                                                             |      |

## W2-Rm10

### Decision Making and Management for Infrastructure Systems II

|                                                                                                                |      |
|----------------------------------------------------------------------------------------------------------------|------|
| A Survey of Fuzzy Set Theory in Intelligent Transportation: State of the art and future trends .....           | 3952 |
| <i>Mohsen Davarynejad, Jos Vrancken</i>                                                                        |      |
| Multi-agent Coordination in Market Environment for Future Electricity Infrastructure based on Microgrids ..... | 3959 |
| <i>Rui Duan, Geert Deconinck</i>                                                                               |      |
| Addressing Criticality Levels in Critical Infrastructure System .....                                          | 3965 |
| <i>Chuanfeng Han, Liang Liu, Mei Rong</i>                                                                      |      |
| Laboratory of Power Supply-Demand Research by Intelligent Engineering .....                                    | 3971 |
| <i>Zhaoguang Hu, Minjie Xu, Baoguo Shan, Quan Wen</i>                                                          |      |
| Ensemble of Machine Learning Algorithms for Intrusion Detection .....                                          | 3976 |
| <i>Te-Shun Chou, Jeffrey Fan, Sharon Fan, Kia Makki</i>                                                        |      |

## W2-Rm11

### Collaborative Commerce

|                                                                 |      |
|-----------------------------------------------------------------|------|
| Collaborative Group Assignment with Competency Trees .....      | 3981 |
| <i>Wan Hok Man, Vincent TY Ng</i>                               |      |
| Hierarchical Pareto Curve (HPC) Model for Privacy Skyline ..... | 3988 |
| <i>Boris Y. Chan, Vincent Ng, Jacob Sun</i>                     |      |

|                                                                                                    |      |
|----------------------------------------------------------------------------------------------------|------|
| An XML-based Data Interchange Protocol and Supporting Systems for Online Customs Declaration ..... | 3994 |
| <i>Yinsheng Li, Fangyuan Kang, Weiming Shen, Mu Zhu</i>                                            |      |
| An Interval Centroid Based Spread Spectrum Watermark for Tracing Multiple Network Flows .....      | 4000 |
| <i>Xiaogang Wang, Junzhou Luo, Ming Yang</i>                                                       |      |
| Ontological View Based Semantic Transformation for Distributed Systems .....                       | 4007 |
| <i>Ying Daisy Wang, Hamada Ghenniwa, Weiming Shen</i>                                              |      |

## W2-Rm12

### Robotic Systems V

|                                                                                                         |      |
|---------------------------------------------------------------------------------------------------------|------|
| Robust control for robot manipulators by using only joint position measurements .....                   | 4013 |
| <i>Shafiqul Islam, Peter X. Liu</i>                                                                     |      |
| Real-time video smoothing for small RC helicopters .....                                                | 4019 |
| <i>Marynel Vazquez, Carolina Chang</i>                                                                  |      |
| A Psychophysical Model of the Power Assist System for Lifting Objects .....                             | 4025 |
| <i>S.M. Mizanoor Rahman, Ryojun Ikeura, Masaya Nobe, Hideki Sawai</i>                                   |      |
| Imitative Motion Generation for Humanoid Robots based on the Motion Knowledge Learning and Reuse .....  | 4031 |
| <i>Yuki Okuzawa, Shohei Kato, Masayoshi Kanoh, Hidenori Itoh</i>                                        |      |
| Synthesis of Tendon-Driven Manipulators with High Fault Tolerance .....                                 | 4037 |
| <i>Jinn-Biau Sheu, Jyh-Jone Lee</i>                                                                     |      |
| Combining Color Histogram and Gradient Orientation Histogram for Vision Based Global Localization ..... | 4043 |
| <i>Hong Liu, Xiaojia Yu, Haitao Yu</i>                                                                  |      |

## W2-Rm13

### Enterprise Information Systems III

|                                                                                                               |      |
|---------------------------------------------------------------------------------------------------------------|------|
| An Integer Programming Model and Heuristic Algorithm for Automatic Scheduling in Synchrotron Facilities ..... | 4048 |
| <i>Zahid Anwar, Zhiguo Wang, Chun Wang, Dan Ni, Yaofeng Xu, Yuhong Yan</i>                                    |      |

|                                                                                |      |
|--------------------------------------------------------------------------------|------|
| Parallel Iterative Reengineering Model of Legacy Systems .....                 | 4054 |
| <i>Xing Su, Xiaohu yang, juefeng Li, Di Wu</i>                                 |      |
| A Population Control Protocol for Mobile Agent Based Workflow Automation ..... | 4059 |
| <i>Marina Flores-Badillo, Adrian Padilla-Duarte, Ernesto Lopez-Mellado</i>     |      |
| Efficient Optimized Composition of Semantic Web Services .....                 | 4065 |
| <i>Rattikorn Hewett, Bach Tuong Nguyen, Phongphun Kijsanayothin</i>            |      |

## **W2-Rm14**

### **Control of Uncertain Systems**

|                                                                                                                         |      |
|-------------------------------------------------------------------------------------------------------------------------|------|
| Nonlinear Robust Control to Maximize Energy Capture in a Variable Speed Wind Turbine Using an Induction Generator ..... | 4071 |
| <i>Erhun Iyasere, Darren M. Dawson, John R. Wagner, Mohammed Salah, Enver Tatlicioglu</i>                               |      |
| Generalized Sampling based Motion Planners with Application to Nonholonomic Systems                                     | 4077 |
| <i>Suman Chakravorty, S. Kumar</i>                                                                                      |      |
| Adaptive Control of Partially Known Continuous-Time Systems .....                                                       | 4083 |
| <i>Rasul Mohammadi</i>                                                                                                  |      |
| A Wavelet-Based Recurrent Fuzzy Neural Network Trained With Stochastic Optimization Algorithm .....                     | 4089 |
| <i>Ahmad Taha Abdulsadda, Kamran Iqbal</i>                                                                              |      |
| Optimal Low Error Control of Disturbed Systems .....                                                                    | 4094 |
| <i>Debraj Chakraborty, Jacob Hammer</i>                                                                                 |      |
| Networked Predictive Control of Magnetic Levitation System .....                                                        | 4100 |
| <i>Bo Wang, Guo-Ping Liu, David Rees</i>                                                                                |      |

## **W3-Rm1**

### **Visual Information Processing III**

|                                                                                   |      |
|-----------------------------------------------------------------------------------|------|
| Image Fusion Quality Metrics by Directional Projection .....                      | 4106 |
| <i>Hong Richang, Song Yan, Jinhui Tang, Jianxin Pang</i>                          |      |
| Concept-Dependent Image Annotation via Existence-Based Multiple-Instance Learning | 4112 |
| <i>Xun Yuan, Meng Wang, Yan Song</i>                                              |      |

|                                                                                                                            |      |
|----------------------------------------------------------------------------------------------------------------------------|------|
| Fast Palmprint Retrieval Using Principal Lines .....                                                                       | 4118 |
| <i>Jia Wei, Yi-Hai Zhu, Ling-Feng Liu, De-Shuang Huang</i>                                                                 |      |
| Application of bidirectional two-dimensional principal component analysis to curvelet feature based face recognition ..... | 4124 |
| <i>Abdul Adeel Mohammed, Jonathan Wu, M. A. Ahmed</i>                                                                      |      |
| An Adaptive Octree Textures Painting Algorithm .....                                                                       | 4131 |
| <i>Dang Gang, Hang Li, Zhi-Quan cheng, Kai Xu, Yan-Zhen Wang, Bao Li</i>                                                   |      |

## W3-Rm2

### Systems and Cybernetics

|                                                                                                   |      |
|---------------------------------------------------------------------------------------------------|------|
| Vehicle Detection and Tracking in Relatively Crowded Conditions .....                             | 4136 |
| <i>Wenhao Lu, Shengjin Wang, Xiaoqing Ding</i>                                                    |      |
| On the absolute orientation problem in computer vision .....                                      | 4142 |
| <i>Rodney G. Roberts, Daniel W. Repperger</i>                                                     |      |
| Diagnosis and prognosis for the maintenance of complex systems .....                              | 4146 |
| <i>Pauline Ribot, Yannick Pencole, Michel Combacau</i>                                            |      |
| Integration of societal outage cost into infrastructure design and maintenance optimization ..... | 4152 |
| <i>Paulien M. Herder, Austine N. Ajah, Margot P.C. Weijnen</i>                                    |      |

## W3-Rm3

### Intelligent Transportation Systems and Power Systems

|                                                                                                                  |      |
|------------------------------------------------------------------------------------------------------------------|------|
| Development of Telematics Communication System with WAVE DSRC .....                                              | 4158 |
| <i>Kang Chiao Lin, Chun Huang Lin</i>                                                                            |      |
| Condition monitoring of wooden railway sleepers using time-frequency techniques and pattern classification ..... | 4164 |
| <i>Siril Yella, Samira Ghiamati, Mark Dougherty</i>                                                              |      |
| UTOSPF with Waiting Times for Green Light Consideration .....                                                    | 4170 |
| <i>Karim Faez, Mohammad Khanjary</i>                                                                             |      |
| A LRF and stereovision based data association method for objects tracking .....                                  | 4175 |
| <i>Pawel Kmiolek, Cyril Meurie, Yassine Ruichek, Zann Frederick</i>                                              |      |

|                                                                                                |      |
|------------------------------------------------------------------------------------------------|------|
| GA Tuned Differential Evolution for Economic Load Dispatch with Non-convex Cost Function ..... | 4183 |
| <i>Nidul Sinha, Y Ma, Loi Lei Lai</i>                                                          |      |
| Available Transfer Capability Evaluation Based on Extended Blind Number .....                  | 4189 |
| <i>C.W. Gao, H Pan, Q.L. Wan, Loi Lei Lai</i>                                                  |      |

## W3-Rm4

### Artificial Immune Systems

|                                                                                                                                                                             |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Advancement in the twentieth century in artificial immune systems for optimization: review and future outlook .....                                                         | 4195 |
| <i>Eugene Y.C. Wong, Henry Y.K. Lau</i>                                                                                                                                     |      |
| An Artificial Immune Systems based Predictive Modelling Approach for the Multi-Objective Elicitation of Mamdani Fuzzy Rules A Special Application to Modelling Alloys ..... | 4203 |
| <i>Jun Chen, Mahdi Mahfouf</i>                                                                                                                                              |      |
| A General Growth Model for the Emergence of Power-law Distributions .....                                                                                                   | 4210 |
| <i>Shiwu Zhang, Jiming Liu</i>                                                                                                                                              |      |
| Design RF Diplexer by Directional Immune Clonal Selection Algorithm .....                                                                                                   | 4214 |
| <i>Qiuyi Wu, Yangyang Li, Licheng Jiao</i>                                                                                                                                  |      |
| Stride Rate in Radar Micro-Doppler Images .....                                                                                                                             | 4218 |
| <i>Dave Tahmoush, Jerry Silvious</i>                                                                                                                                        |      |

## W3-Rm5

### Neural Networks and Their Applications III

|                                                                                            |      |
|--------------------------------------------------------------------------------------------|------|
| Simultaneous vs. Successive Learning In Neural Networks .....                              | 4224 |
| <i>Anthony Choi, Nithyalakshmi Nareshkumar</i>                                             |      |
| The Use of TurSOM for Color Image Segmentation .....                                       | 4232 |
| <i>Derek Beaton, Iren Valova, Dan Maclean</i>                                              |      |
| Development of a Full Body Balance Model Using an Artificial Neural Network Approach ..... | 4238 |
| <i>Roseann Trevino, Michael T. Frye, Chunjiang Qian</i>                                    |      |

|                                                                                                                  |      |
|------------------------------------------------------------------------------------------------------------------|------|
| Self-Selective Clustering of Training Data Using the Maximally-Receptive Classifier/Regression Bank .....        | 4243 |
| <i>Robert Jackson Marks, Ram Balasubramanian, Mohamed El-Sharkawi, Jae-Byung Jung, R.T. Miyamoto, W.L.J. Fox</i> |      |
| Discovering the Best Web Service: A Neural Network-based Solution .....                                          | 4250 |
| <i>Eyhab Al-Masri, H. Qusay Mahmoud</i>                                                                          |      |
| Testing Artificial Metaplasticity in MLP Applications .....                                                      | 4256 |
| <i>Diego Andina, Alexis Marciano-Cedeno, Joaquin Torres, Martin J. Alarcon</i>                                   |      |

## W3-Rm6

### Systems Biology

|                                                                                                                                        |      |
|----------------------------------------------------------------------------------------------------------------------------------------|------|
| Dynamically dysfunctional protein interactions in the development of Alzheimer's disease .....                                         | 4262 |
| <i>Zhi-Ping Liu, Yong Wang, Wen Tieqiao, Zhang Xiang-Sun, Weiming Xia, Luonan Chen</i>                                                 |      |
| Genetic Networks with SUM Regulatory Functions: Characterizing the Equilibrium Points .....                                            | 4268 |
| <i>Graziano Chesi</i>                                                                                                                  |      |
| Reliable Detection of Short Periodic Gene Expression Time Series Profiles in DNA Microarray Data .....                                 | 4274 |
| <i>Alan Wee-Chung Liew, Hong Yan</i>                                                                                                   |      |
| Co-Expressed Gene Assessment Based on the Path Consistency Algorithm: Operon Deletion in Escherichia coli .....                        | 4280 |
| <i>Katsuhisa Horimoto, Shigeru Saito</i>                                                                                               |      |
| A committee of NNA classifiers for the prediction of the binding between miRNAs and the target genes using a novel coding method ..... | 4287 |
| <i>Yudong Cai, ZhiSong He, Kaiyan Feng</i>                                                                                             |      |

## W3-Rm7

### Hybrid models of NN, Fuzzy Sys & Evolutionary Computing II

|                                                                                        |      |
|----------------------------------------------------------------------------------------|------|
| Developing Adaptive Driving Route Guidance Systems Based on Fuzzy Neural Network ..... | 4293 |
| <i>I-Cheng Lin, Shou-Yan Chou, Hsin-Yin Hsu</i>                                        |      |

|                                                                                                                         |      |
|-------------------------------------------------------------------------------------------------------------------------|------|
| The Comparison of Neural Network and Hybrid Neuro-Fuzzy based Inferential Sensor Models for Space Heating Systems ..... | 4299 |
| <i>Surinder K. Jassar, T. Behan, L. Zhao, Z. Liao</i>                                                                   |      |
| A Hybrid MGA-BP Algorithm for RBFNs self-generate .....                                                                 | 4304 |
| <i>Shiwei Yu, Kejun zhu</i>                                                                                             |      |
| Delay Nonlinear System Predictive Control On MPSO+DNN .....                                                             | 4309 |
| <i>Min Han, Jianchao Fan</i>                                                                                            |      |
| An Embedded Interval Type-2 Neuro-Fuzzy Controller for Intelligent Navigation of Mobile Robot .....                     | 4315 |
| <i>Siti Nurmaini, Siti Zaiton, Dayang Norhayati</i>                                                                     |      |

## **W3-Rm8**

### **Optimization II**

|                                                                                                                                     |      |
|-------------------------------------------------------------------------------------------------------------------------------------|------|
| Generalization of the No-Free-Lunch Theorem .....                                                                                   | 4322 |
| <i>Albert Y.S. Lam, Victor O.K. Li</i>                                                                                              |      |
| A T-S Fuzzy based Adaptive Critic for Continuous-time Input Affine Nonlinear Systems .....                                          | 4329 |
| <i>Laxmidhar Behera, Prem Kumar P., Nazmul H. Siddique, Girijesh Prasad</i>                                                         |      |
| An Integrated ACO-AHP Approach for Resource Management Optimization .....                                                           | 4335 |
| <i>Kia Fallahi, Henry Leung, Sandeep Chandana</i>                                                                                   |      |
| Trajectory Planning for An Unmanned Ground Vehicle Group Using Augmented Particle Swarm Optimization in a Dynamic Environment ..... | 4341 |
| <i>Yunji Wang, Philip Chen, Yufang Jin</i>                                                                                          |      |
| A Novel Grey Model to Short-Term Electricity Price Forecasting for NordPool Power Market .....                                      | 4347 |
| <i>Ming Li Lei, Zuren Feng</i>                                                                                                      |      |

## **W3-Rm9**

### **Meta-synthesis and Complex Systems I**

|                                                                                 |      |
|---------------------------------------------------------------------------------|------|
| Inventory Policies for Supply Chains: A System Dynamics Model based Study ..... | 4353 |
| <i>Balaji Janamanchi</i>                                                        |      |

|                                                                                                                        |      |
|------------------------------------------------------------------------------------------------------------------------|------|
| Decision Analysis with Hybrid Uncertain Performance Targets .....                                                      | 4360 |
| <i>Van-Nam Huynh, Hong-Bin Yan, Yoshiteru Nakamori</i>                                                                 |      |
| Knowledge Transfer in Science-Policy Process -Case Study on Remote Sensing Technology<br>in Disaster Management- ..... | 4366 |
| <i>Mitsumi Miyashita, Yoshiteru Nakamori</i>                                                                           |      |
| An Interpretation of Recent Technological Innovation in Traditional Craft Industry in<br>Japan .....                   | 4372 |
| <i>Yukihiro Yamashita, Yoshiteru Nakamori</i>                                                                          |      |

### **W3-Rm10**

#### **Decision Support Systems I**

|                                                                                                         |      |
|---------------------------------------------------------------------------------------------------------|------|
| A Portfolio Selection Model using Genetic Relation Algorithm and Genetic Network Pro-<br>gramming ..... | 4378 |
| <i>Yan Chen, Shingo Mabu, Kotaro Hirasawa</i>                                                           |      |
| Shape Design of Products Based on A Decision Support System .....                                       | 4384 |
| <i>Yung Chin Hsiao, Junzo Watada</i>                                                                    |      |
| Incorporating User Cognitive Profile Information in Intelligent Decision Support Systems                | 4391 |
| <i>Flavio Rosendo Oliveira, Fernando Buarque Lima Neto</i>                                              |      |
| Forecast of Next Day Clearing Price in Deregulated Electricity Market .....                             | 4397 |
| <i>Zhou Hui</i>                                                                                         |      |

### **W3-Rm11**

#### **Collaborative Manufacturing and Supply Chains**

|                                                                                   |      |
|-----------------------------------------------------------------------------------|------|
| A Dynamic Scheduling Algorithm for Time- and Resource-Constrained Task Networks . | 4402 |
| <i>Qi Hao, Yunjiao Xue, Shuying Wang, Weiming Shen</i>                            |      |
| Bidding Languages for Auction-Based Distributed Scheduling .....                  | 4408 |
| <i>Chun Wang, Hamada H. Ghenniwa, Weiming Shen</i>                                |      |
| A Multidisciplinary Review of Collaborative Supply Chain Planning .....           | 4414 |
| <i>Jean-Marc Frayret</i>                                                          |      |
| Automating Nurse Self-Rostering: A Multiagent Systems Model .....                 | 4422 |
| <i>Zhiguo Wang, Chun Wang</i>                                                     |      |

|                                                                              |      |
|------------------------------------------------------------------------------|------|
| Auction-Based Negotiation Mechanism for Integrated Due Date Management ..... | 4426 |
| <i>Chun Wang, Hamada H. Ghenniwa, Weiming Shen</i>                           |      |

## W3-Rm12

### Mechatronics

|                                                                                                                                                               |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Active Sidestick Design Using Impedance Control .....                                                                                                         | 4432 |
| <i>Ganga Jayaraman, Zenon Szulyk</i>                                                                                                                          |      |
| Euclidean Position Estimation of Static Features using a Moving Uncalibrated Camera .....                                                                     | 4438 |
| <i>Nitendra Nath, Darren Dawson, Enver Tatlicioglu</i>                                                                                                        |      |
| Range Identification for Nonlinear Parameterizable Paracatadioptric Systems .....                                                                             | 4444 |
| <i>Nitendra Nath, Enver Tatlicioglu, Darren Dawson</i>                                                                                                        |      |
| Industrial Automation using Embedded Systems and Machine-to-Machine, Man-to-Machine (M2M) Connectivity for Improved Overall Equipment Effectiveness (OEE) ... | 4450 |
| <i>Waseem Amer, U. Ansari, Abdul Ghafoor</i>                                                                                                                  |      |
| A 3-D Simulator using ADAMS for Design of an Autonomous Gyroscopically Stabilized Single Wheel Robot .....                                                    | 4455 |
| <i>Abdullah Al Mamun, Zhen Zhu, Myint Phone Naing</i>                                                                                                         |      |
| Robust Tracking Using Hybrid Control System .....                                                                                                             | 4461 |
| <i>Shafiqul Islam, Peter X. Liu</i>                                                                                                                           |      |

## W3-Rm13

### System Modeling & Control III

|                                                                                                 |      |
|-------------------------------------------------------------------------------------------------|------|
| Smart Home at a Finger Tip: OSGi-based MyHome .....                                             | 4467 |
| <i>Wei-Chung Teng, Hsuan-Yu Huang, Sheng-Luen Chung</i>                                         |      |
| Stability Criteria for A Class of MIMO Networked Control Systems with Network Constraints ..... | 4473 |
| <i>Xiaopeng Liu, Guo-Ping Liu, Yuanqing Xia, David Rees, Jian Sun</i>                           |      |
| Implied Historical Federal Reserve Bank Behavior Under Uncertainty .....                        | 4478 |
| <i>Muhuttin Yilmaz, Selahattin Ozcelik, Nuri Yilmazer</i>                                       |      |
| Formal specification and simulation of the robot path planner .....                             | 4484 |
| <i>Yassine M. Belkhouche, Boumedien Belkhouche</i>                                              |      |

|                                                                   |      |
|-------------------------------------------------------------------|------|
| An Approximate Solution to the Norm Optimal Control Problem ..... | 4490 |
| <i>Debraj Chakraborty, C. Shaikshavali</i>                        |      |

## W3-Rm14

### Control of Nonlinear and Uncertain Systems

|                                                                                        |      |
|----------------------------------------------------------------------------------------|------|
| Feedback-Error-Learning For Stability of Double Inverted Pendulum .....                | 4496 |
| <i>Kiankhah Ehsan, Teshnelab Mohammad, Aliyari Shoorehdeli Mahdi</i>                   |      |
| Nonlinear dynamic system control using wavelet neural network based on sampling theory | 4502 |
| <i>Ehsan Hossaini Asl, Mehdi Shahbazian</i>                                            |      |
| Adaptive CMAC Control System Design for a Class of Nonlinear Systems .....             | 4508 |
| <i>Chih-Min Lin, Chao-Ming Chung, Chun-Fei Hsu</i>                                     |      |
| Clustering Based Multi-Label Classification for Image Annotation and Retrieval .....   | 4514 |
| <i>Gulisong Nasierding, Grigorios Tsoumakas, Abbas Z. Kouzani</i>                      |      |
| Adaptive Type-2 Fuzzy Maintenance Advisor for Offshore Power Systems .....             | 4520 |
| <i>Zhaoxia Wang, C.S. Chang, F. Yang, W.W. Tan</i>                                     |      |
| Impacts of Emissions Trading on Power Industries and Electricity Markets .....         | 4527 |
| <i>Binbin Xun, Fushuan Wen, Iain MacGill</i>                                           |      |

## W4-Rm1

### TBD

## W4-Rm2

### Systems

## W4-Rm3

### Remote Services

|                                                                           |      |
|---------------------------------------------------------------------------|------|
| Electronic Voting Using Confirmation Numbers .....                        | 4535 |
| <i>Kazi MD. Rokibul Alam, Shinsuke Tamura</i>                             |      |
| A Mechanism For Enhanced Symmetric Key Encryption Based Mixnet .....      | 4541 |
| <i>Hazim Anas Haddad, S. Tamura, Hiroya Tsurugi</i>                       |      |
| A system on the Web for octuple-precision computation .....               | 4547 |
| <i>Takemitsu Hasegawa, Yohsuke Hosoda, Yuuichi Itaya, Ichizo Ninomiya</i> |      |
| A web system for the 3D display of bivariate mathematical functions ..... | 4552 |
| <i>Yohsuke Hosoda, Takemitsu Hasegawa</i>                                 |      |
| A Linear Hashing Enabling Efficient Retrieval for Range Queries .....     | 4557 |
| <i>Ken Higuchi, Tatsuo Tsuji</i>                                          |      |

#### **W4-Rm4**

#### **Information Assurance & Intelligent Multimedia-Mobile Communications**

|                                                                               |      |
|-------------------------------------------------------------------------------|------|
| A Non-Reference Measure for Objective Edge Map Evaluation .....               | 4563 |
| <i>Shahan C Nercessian, Sos S. Agaian, Karen A. Panetta</i>                   |      |
| Image Encryption Using Binary Key-images .....                                | 4569 |
| <i>Yicong Zhou, Karen A. Panetta, Sos S. Agaian</i>                           |      |
| A Land Mobile Channel Modeling in LabVIEW .....                               | 4575 |
| <i>Grant Huang, Arpine Soghoyan, Akopian David, Philip Chen, Abhay Samant</i> |      |
| Alpha-trimmed Image Estimation for JPEG Steganography Detection .....         | 4581 |
| <i>Mei-Ching Chen, Sos S. Agaian, Philip Chen, Benjamin M. Rodriguez</i>      |      |

#### **W4-Rm5**

#### **Neural Networks and Their Applications IV**

|                                                                                                                      |      |
|----------------------------------------------------------------------------------------------------------------------|------|
| A Sensitivity-Based Training Algorithm with Architecture Adjusting for Madalines ....                                | 4586 |
| <i>Yan Jun Liu, Xiaoqin Zeng, Shuiming Zhong, Shengli Wu</i>                                                         |      |
| Single-Frequency GPS Receivers Ionospheric Time-Delay Approximation using Radial Basis Function Neural Network ..... | 4592 |
| <i>Mohammad Reza Mosavi, Hamid AmirMoini</i>                                                                         |      |

|                                                                                                  |      |
|--------------------------------------------------------------------------------------------------|------|
| The Combined Use of Evidence Theory and Vague Sets to Interpret Multimodal Inspection Data ..... | 4596 |
| <i>Bai Hua</i>                                                                                   |      |

## W4-Rm6

### Consumer and Industrial Applications/ Micro and Nano Systems

|                                                                                                              |      |
|--------------------------------------------------------------------------------------------------------------|------|
| Is Stock BBS Content Correlated with the Stock Market?A Japanese Case .....                                  | 4601 |
| <i>Ken Maruyama, Eiichi Umehara, Hirohiko Suwa, Toshizumi Ohta</i>                                           |      |
| A Field-Oriented Approach to Web Form Validation for Database-Isolated Rule .....                            | 4607 |
| <i>Liang Zhou, Jianling Sun</i>                                                                              |      |
| A Novel Consumer Clock Device Based on Grey Relational Analysis .....                                        | 4613 |
| <i>Po Lun Chang, Ying-Kuei Yang, Wei-Lieh Hsu, Fei-Hu Hsieh, Mu-der Jeng, Yu-Xin Guo</i>                     |      |
| A Microfluidic Electroosmotic Mixer and the Effect of Potential and Frequency on its Mixing Efficiency ..... | 4618 |
| <i>Abbas Z. Kouzani, Khashayar Khoshmanesh, Saeid Saeid Nahavandi, Jagat Kanwar</i>                          |      |
| Design and Simulation of a Low Voltage Wide Band RF MEMS Switch .....                                        | 4623 |
| <i>Y. Mafinejad, Abbas Z. Kouzani, K. Mafinezhad, H. Nabovatti</i>                                           |      |
| Optical Microsensor for Counting Food Substance Particles in Lab-on-a-chips .....                            | 4628 |
| <i>A. J. Dixon, Abbas Z. Kouzani, A. Kaynak, B. A. Sexton</i>                                                |      |

## W4-Rm7

### TBD

## W4-Rm8

### Education Technology and Training

|                                                    |      |
|----------------------------------------------------|------|
| A Remote Over-Internet Hands-on Laboratory .....   | 4634 |
| <i>Arsen Melkonyan, David Akopian, Philip Chen</i> |      |

|                                                                                     |      |
|-------------------------------------------------------------------------------------|------|
| Study on Blended Learning Approach for English Teaching .....                       | 4641 |
| <i>Xiaomei Wang, Yajun Yang, Xin Wen</i>                                            |      |
| Design and Implementation of a Service-Oriented Web-based Control Laboratory .....  | 4645 |
| <i>Yuliang Qiao, Guo-Ping Liu, Geng Zheng</i>                                       |      |
| Mathematical Figure Recognition for Automating Production of Tactile Graphics ..... | 4651 |
| <i>Noboru Takagi</i>                                                                |      |

## W4-Rm9

### Meta-synthesis and Complex Systems II

|                                                                                               |      |
|-----------------------------------------------------------------------------------------------|------|
| Technologies for Qualitative Meta-synthesis of Community Consensus .....                      | 4657 |
| <i>Xijin Tang</i>                                                                             |      |
| Research on Financial Warning for Chinese Listed Companies by Using Panel Data Model          | 4663 |
| <i>Xijuan Shao, Yaohui Chen, Haibo Wang</i>                                                   |      |
| Decision Making Using Early Warning Information on Extreme Weather .....                      | 4668 |
| <i>Akio Hiramatsu, Van-Nam Huynh, Yoshiteru Nakamori</i>                                      |      |
| Meta-synthesis Seminar Hall for Power Supply and Demand Research .....                        | 4673 |
| <i>Baoguo Shan, Quan Wen, Xiandong Tan, Yuanbing Zhou, Zhaoguang Hu</i>                       |      |
| A Multi-Objective Decision Making on Reliability Growth Planning for In-Service Systems ..... | 4677 |
| <i>Tongdan Jin, Haibo Wang</i>                                                                |      |

## W4-Rm10

### Decision Support Systems II

|                                                                                                 |      |
|-------------------------------------------------------------------------------------------------|------|
| Optimization-based Decision Support Algorithms for a Team-in-the-Loop Planning Experiment ..... | 4684 |
| <i>Huy N. Bui, Xu Han, Suvasri Mandal, Krishna R Pattipati, David L. Kleinman</i>               |      |
| Chaotic Global Optimization by Direct Stability Control of Gradient-Based Systems ...           | 4690 |
| <i>Kazuaki Masuda, Kurihara Kenzo</i>                                                           |      |
| Numerical Experimentation on Structure Simplification in Bayesian Network .....                 | 4698 |
| <i>Masakazu Shiba, Atsushi Takahashi, Shingo Aoki , Hiroshi Tsuji, Shuuki Inoue</i>             |      |

|                                                            |      |
|------------------------------------------------------------|------|
| An extension of fuzzy TOPSIS for personnel selection ..... | 4704 |
| <i>Alecos Michail Kelemenis, Dimitrios Askounis</i>        |      |

|                                                                                      |      |
|--------------------------------------------------------------------------------------|------|
| A Broker-Assisting Trust and Reputation System Based on Artificial Neural Network .. | 4710 |
| <i>Bo Zong, Feng Xu, Jun Jiao, Jian Lv</i>                                           |      |

## W4-Rm11

### Role-Based Systems/Quality & Reliability Engineering

|                                                       |      |
|-------------------------------------------------------|------|
| Improvement to Rated Role Assignment Algorithms ..... | 4716 |
| <i>Haibin Zhu, Rob Alkins</i>                         |      |

|                                                              |      |
|--------------------------------------------------------------|------|
| A Web Services Market Framework with Role Based Agents ..... | 4722 |
| <i>Durmus Ali, Nadia Erdogan</i>                             |      |

|                                                                                                               |      |
|---------------------------------------------------------------------------------------------------------------|------|
| A Multi-objective Approach to Implement an Integrated Management System: Quality, Security, Environment ..... | 4728 |
| <i>Ahmed Badreddine, Taieb Ben Romdhane, Nahla Ben Amor</i>                                                   |      |

|                                                                       |      |
|-----------------------------------------------------------------------|------|
| A New MAS Based Approach Modeling the QMS Continual Improvement. .... | 4734 |
| <i>Hajer Ben Mahmoud Dammak, Taieb Ben Romdhane, Raouf Ketata</i>     |      |

|                                                                   |      |
|-------------------------------------------------------------------|------|
| ESA PetriNet: Petri net Based Tool for Reliability Analysis ..... | 4740 |
| <i>Nabil Sadou, Romaric Guillerm, Hamid Demmou</i>                |      |

## W4-Rm12

### Mechatronics and Mobile Robotics

|                                                                      |      |
|----------------------------------------------------------------------|------|
| Eyeglasses Based Electrooculography Human-wheelchair Interface ..... | 4746 |
| <i>Chung-Hsien Kuo, Yi-Chang Chan, Hung-Chyun Chou, Jia-Wun Siao</i> |      |

|                                                                                                                                                        |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Towards a High-Stability EMG Recognition System for Prosthesis Control: a One-Class Classification Based Non-Target EMG Pattern Filtering Scheme ..... | 4752 |
| <i>Yi-Hung Liu, Han-Pang Huang</i>                                                                                                                     |      |

|                                                                                   |      |
|-----------------------------------------------------------------------------------|------|
| Applications of Highly Accurate Localization And Navigation to Mobile Robot ..... | 4758 |
| <i>Guo-Shing Huang, Jie-Cong Ciou, Hsiung-Cheng Lin</i>                           |      |

|                                                                                                   |      |
|---------------------------------------------------------------------------------------------------|------|
| Optimization of Type-2 Fuzzy Logic Controllers for Mobile Robots Using Evolutionary Methods ..... | 4764 |
| <i>Oscar Castillo, Patricia Melin, Ricardo Martinez, Antonio Rodriguez, Luis Aguilar</i>          |      |

|                                                                                                                                                 |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Parameter Tuning of Membership Functions of a Fuzzy Logic Controller for an Autonomous Wheeled Mobile Robot Using Ant Colony Optimization ..... | 4770 |
| <i>Oscar Castillo, Ricardo Martinez-Marroquin, Jose Soria</i>                                                                                   |      |

## W4-Rm13

### System Modeling & Control IV

|                                                                                                                        |      |
|------------------------------------------------------------------------------------------------------------------------|------|
| On Control of Power Supply Process of Marine Shaft Generator .....                                                     | 4776 |
| <i>Xiaoyan Xu, Yinzhong Ye, Philip Chen</i>                                                                            |      |
| Direct Torque Control Theory of a Double Three Phrases Permanent Magnet Synchronous Motor .....                        | 4780 |
| <i>Yi Guo, Wei Feng Shi, Philip Chen</i>                                                                               |      |
| Stability and Stabilization for Discrete Systems with Time-varying Delays Based on the Average Dwell-time Method ..... | 4786 |
| <i>Jian Sun, Jie Chen, Guo-Ping Liu, David Rees</i>                                                                    |      |
| A New Approach Based on Particle Filter for Target Tracking with Glint Noise .....                                     | 4791 |
| <i>Jun Gen Zhang, Hong Bing Ji, Qikun Xue</i>                                                                          |      |

## W4-Rm14

### Cooperative Systems and Control

|                                                                                             |      |
|---------------------------------------------------------------------------------------------|------|
| Reduced Order Modeling Using Genetic-Fuzzy algorithm .....                                  | 4796 |
| <i>Ahmad Taha Abdulsadda, Kamran Iqbal</i>                                                  |      |
| Optimal Flocking Control for a Mobile Sensor Network Based a Moving Target Tracking .....   | 4801 |
| <i>Hung Manh La, Trung Hien Nguyen, Cong Huu Nguyen, Hien Nhu Nguyen</i>                    |      |
| On Decentralized Navigation Schemes for Coordination of Multi-Agent Dynamical Systems ..... | 4807 |
| <i>Hajir Roozbehani, Sylvain Rudaz, Denis Gillet</i>                                        |      |
| A Hamilton-Jacobi Formulation for Cooperative Control of Multi-Agent Systems .....          | 4813 |
| <i>Hajir Roozbehani, Sylvain Rudaz, Denis Gillet</i>                                        |      |
| Analysis of Networked Predictive Control Systems with Uncertainties .....                   | 4819 |
| <i>Guo-Ping Liu</i>                                                                         |      |

|                                                                                   |      |
|-----------------------------------------------------------------------------------|------|
| Enhancing the Computing Efficiency of Power System Dynamic Analysis with PSS-E .. | 4825 |
| <i>Ke Meng, Zhao Yang Dong, Kit Po Wong</i>                                       |      |

## M Posters

|                                                                                                                  |      |
|------------------------------------------------------------------------------------------------------------------|------|
| Bayesian Polytope ARTMAP: An ART-based Network With Two Kinds of Inner Geometry Categories .....                 | 4830 |
| <i>Leonardo Liao, Yongqiang Wu</i>                                                                               |      |
| Neural Network and Genetic Algorithm-based Hybrid Approach to Dynamic Job Shop Scheduling Problem .....          | 4836 |
| <i>Ye Li, Yan Chen</i>                                                                                           |      |
| Automatic Classification of Chinese Female Facial Beauty Using Support Vector Machine                            | 4842 |
| <i>Huiyun Mao, Lianwen Jin, Minghui Du</i>                                                                       |      |
| Three Dimensional Palmprint Recognition .....                                                                    | 4847 |
| <i>Li Wei, Lei Zhang, David Zhang</i>                                                                            |      |
| Multispectral Remote Sensing Image Classification Algorithm Based on Rough Set Theory .....                      | 4853 |
| <i>Ying Wang, Xiaoyun Liu, Zhensong Wang, Wufan Chen</i>                                                         |      |
| A Low-Cost Green IT Concept Design of VHSP Based on Virtualization Technology ...                                | 4858 |
| <i>Chih-Hung Chang, Tzu-Chien Hsiao</i>                                                                          |      |
| Enhancement of ELECTRE I Using Compound Linguistic Ordinal Scale and Cognitive Pairwise Comparison .....         | 4864 |
| <i>Kevin Kam Fung Yuen</i>                                                                                       |      |
| Monothetic Separation of Telugu, Hindi and English Text Lines From a Multilingual ...                            | 4870 |
| <i>M.C. Padma, P.A. Vijaya</i>                                                                                   |      |
| STRank: A SiteRank Algorithm Using Semantic Relevance and Time Frequency .....                                   | 4876 |
| <i>Hongzhi Guo, Qingcai Chen, Xiaolong Wang, Zhiyong Wang, Yonghui Wu</i>                                        |      |
| An Spanning Tree Based Method For Pruning Non-Dominated Solutions in Multi-Objective Optimization Problems ..... | 4882 |
| <i>Miqing Li, Jinhua Zheng, Ke Li, Jun Wu, Guixia Xiao</i>                                                       |      |
| Utility-based Metaclassification .....                                                                           | 4888 |
| <i>Michael A. Pittarelli</i>                                                                                     |      |

|                                                                                                        |      |
|--------------------------------------------------------------------------------------------------------|------|
| Grey Relational with BP_PSO For Time Series Forecasting .....                                          | 4895 |
| <i>Roselina Sallehuddin, Siti Mariyam Shamsuddin</i>                                                   |      |
| Topology-driven Streamline Seeding For 2D Vector Field Visualization .....                             | 4901 |
| <i>Wenyao Zhang, Jianquan Deng</i>                                                                     |      |
| Telling Computers and Humans Apart Automatically Using Activity Recognition .....                      | 4906 |
| <i>E. R. Vimina, Alba Urmese Areekal</i>                                                               |      |
| Multi-Instance Multi-Label Learning For Automatic Tag Recommendation .....                             | 4910 |
| <i>Chen Shen, Jun Jiao, Bin Wang, Yahui Yang</i>                                                       |      |
| Subjective Image Quality Assessment: A Method Based on Signal Detection Theory ...                     | 4915 |
| <i>Yurong He, Yuming Xuan, Wenfeng Chen, Xiaolan Fu</i>                                                |      |
| Viewpoint Independent Vehicle Speed Estimation From Uncalibrated Traffic Surveillance<br>Cameras ..... | 4920 |
| <i>Haili Mao, Chengxi Ye, Mingli Song, Jiajun Bu, Na Li</i>                                            |      |
| Rolling Element Bearing Fault Classification Using Soft Computing Techniques .....                     | 4926 |
| <i>Beatrice Lazzerini, Marco Cococcioni, Sara Lioba Volpi</i>                                          |      |
| Intelligent Vessel Dynamics Video Monitoring System Based on AIS Data .....                            | 4932 |
| <i>Jianmin Zhou, Jie Wang</i>                                                                          |      |
| A Study on Technical Development on LNG Vessel .....                                                   | 4936 |
| <i>Jie Wang</i>                                                                                        |      |
| Classes of Optimal Network Topologies Under Multiple Efficiency and Robustness Con-<br>straints .....  | 4940 |
| <i>Sanket Patil, Srinath Srinivasa, Venkat Venkatasubramanian</i>                                      |      |
| RBF Neural Network Adaptive Backstepping Controllers For MIMO Nonlinear Systems                        | 4946 |
| <i>Wei-Yen Wang, Ming Feng Kuo, Tsu-Tian Lee, Hong Chin-Ming, Yih-Guang Leu</i>                        |      |
| Risk Assessment of Marine Traffic Environment Using Unascertained Quantity .....                       | 4952 |
| <i>Shenping Hu, Wei Li, Yongtao Xi, Jie Wang</i>                                                       |      |
| Fuzzy Immune Approach to Biomedical Data Processing .....                                              | 4958 |
| <i>Olgierd Unold</i>                                                                                   |      |

## T Posters

|                                                                                                                                          |      |
|------------------------------------------------------------------------------------------------------------------------------------------|------|
| Evaluation the Algorithms of Fuzzy Temporal Databases Join Operations .....                                                              | 4964 |
| <i>Liguo Deng, Z. M. Ma, Gang Zhang</i>                                                                                                  |      |
| An Unsupervised Feature Ranking Scheme by Discovering Biclusters .....                                                                   | 4970 |
| <i>Qinghua Huang, Lianwen Jin, Dacheng Tao</i>                                                                                           |      |
| Application of genetic algorithms in parameters identification of asynchronous motor ..                                                  | 4976 |
| <i>Hai Jin, Shouguang Ma, Pengying Du</i>                                                                                                |      |
| Open and Scalable Accumulation and Reuse of Common Design Resources .....                                                                | 4982 |
| <i>Cheng Hsu</i>                                                                                                                         |      |
| Impact of the Quality of Random Numbers Generators on the Performance of Particle Swarm Optimization .....                               | 4988 |
| <i>Carmelo J. Albanez Bastos-Filho, Julio Dantas Andrade, Marcelo Pita, Alex D. Ramos</i>                                                |      |
| A Dynamic Evidential Network for Multisensor Context Reasoning in Home-based Care                                                        | 4994 |
| <i>Hyun Lee, Jae Sung Choi, Ramez Elmasri</i>                                                                                            |      |
| MCs Detection Approach Using Bagging and Boosting Based Twin Support Vector Machine .....                                                | 5000 |
| <i>Xinsheng Zhang, Xinbo Gao, Minghu Wang</i>                                                                                            |      |
| A Novel Discrete Differential Evolution Algoritnm for Task Scheduling in Heterogeneous Computing Systems .....                           | 5006 |
| <i>Qinma Kang, Honh He</i>                                                                                                               |      |
| On the Intelligence of the Swimming Operators in the Fish School Search Algorithm ...                                                    | 5012 |
| <i>Carmelo J. Albanez Bastos-Filho, Fernando Buarque Lima Neto, Maria Fernanda Cavalcanti Sousa, Murilo Rebelo Pontes, S. S. Madeiro</i> |      |
| Robustness and Stability of Pure Impulsive Synchronization with Parametric Uncertainties and Mismatch .....                              | 5018 |
| <i>Ziqi Zhu, Hanping Hu</i>                                                                                                              |      |
| Stabilization of network controlled system with multiple-packet transmission .....                                                       | 5024 |
| <i>Mei Yu, Wendong Xiao</i>                                                                                                              |      |
| Nearest-Neighborhood Linear Regression in an Application with Software Effort Estimation .....                                           | 5030 |
| <i>Renata Cardoso Souza, Luciana Leal, Roberta Fagundes, Hermano Moura, Cristine Gusmao</i>                                              |      |
| ResidualRanking: a robust Access-Point selection strategy for indoor location tracking .                                                 | 5035 |
| <i>Min Wang, Chunkai Zhang</i>                                                                                                           |      |

|                                                                                                     |      |
|-----------------------------------------------------------------------------------------------------|------|
| Activity Recognition from acceleration data Based on Discrete Consine Transform and SVM .....       | 5041 |
| <i>Zhenyu He, Lianwen Jin</i>                                                                       |      |
| Unsupervised Data Clustering and Image Segmentation using Natural Computing Techniques .....        | 5045 |
| <i>Jose Alfredo Ferreira Costa, Jackson Gomes</i>                                                   |      |
| A Novel Method of Score Level Fusion Using Multiple Impressions for Fingerprint Verification .....  | 5051 |
| <i>Ren Chunxiao, Yilong Yin, Jun Ma, Gongping Yang</i>                                              |      |
| Feature Selection for Sensor Interoperability: A Case Study in Fingerprint Segmentation .....       | 5057 |
| <i>Ren Chunxiao, Yilong Yin, Jun Ma, Gongping Yang</i>                                              |      |
| Exploiting Text Content in Image Search by Semi-supervised Learning Techniques .....                | 5063 |
| <i>Chen Shen, Bin Wang, Yahui Yang</i>                                                              |      |
| Weightiness image Partition in 3D Face Recognition .....                                            | 5068 |
| <i>Guanghui He, Yuanyan Tang, Bin Fang, taiping Zhang</i>                                           |      |
| A Novel On-Screen Keyboard for Hierarchical Navigation with Reduced Number of Key Strokes .....     | 5072 |
| <i>Debnarayan Kar, Arpan Pal, Chirabrata Bhaumik, Jasma Shukla, Somnath Ghosh-dastidar</i>          |      |
| Study on Feature Selection in Finance Text Categorization .....                                     | 5077 |
| <i>Changqiu Sun, Xiaolong Wang, Jun Xu</i>                                                          |      |
| An Overview on the Existing Language Models for Prediction Systems as Writing Assistant Tools ..... | 5083 |
| <i>Masood Ghayoomi, Saeedeh Momtazi</i>                                                             |      |
| Driver Distraction Test Rig for HMI Studies .....                                                   | 5088 |
| <i>David Shirley, Alex Greenwood, Bottcher Christian, Zhenwei Cao</i>                               |      |

## W Posters

|                                                |      |
|------------------------------------------------|------|
| Fitting Gompertz Curve Using Grey Method ..... | 5093 |
| <i>Lifeng Wu, Yinao Wang</i>                   |      |

|                                                                                                                                   |      |
|-----------------------------------------------------------------------------------------------------------------------------------|------|
| Collaborative Maneuvering Target Tracking in Wireless Sensor Network with Quantized Measurements .....                            | 5097 |
| <i>Yan Zhou, Jianxun Li</i>                                                                                                       |      |
| Spatio-temporal fusion for reliable moving vehicle classification in wireless sensor networks .....                               | 5103 |
| <i>Chunting Liu, Hong Huo, Tao Fang, Deren Li</i>                                                                                 |      |
| Incorporating Innovation-Oriented Education into the Software Engineering Course ....                                             | 5108 |
| <i>Yu Gao, Xiangzhong Feng</i>                                                                                                    |      |
| ORIPS: An Open Resource-based Integrated Platform System for business process execution .....                                     | 5111 |
| <i>Hongming Cai, Dominik Englert, Hao Yu</i>                                                                                      |      |
| Output Planning Based on Data Envelopment Analysis and Extended Cournot Model .                                                   | 5117 |
| <i>Juan Du, Liang Liang</i>                                                                                                       |      |
| A New Efficient Strong Proxy Signcryption Scheme Based on a Combination of Hard Problems .....                                    | 5123 |
| <i>Hassan Elkamchouchi, Mohammed Nasr, Roayat Ismail Elseedy</i>                                                                  |      |
| An Improved Genetic Algorithm for Task Scheduling of Electro-magnetic Detection Satellite with Uncertain Detecting Duration ..... | 5128 |
| <i>Lining Zhang, haoping Li, Dishan Qiu, Jianghan Zhu</i>                                                                         |      |
| On Video Textures Generation: A Comparison Between Different Dimensionality Reduction Techniques .....                            | 5134 |
| <i>Nizar Bouguila, Wentao Fan</i>                                                                                                 |      |
| New e-Learning system architecture based on knowledge engineering technology .....                                                | 5140 |
| <i>Yushun Li, Zheng Chen, Ronghuai Huang, Xiaochun Cheng</i>                                                                      |      |
| Zone Based Hybrid Feature Extraction Algorithm for Handwritten Numeral Recognition of Four Indian Scripts .....                   | 5145 |
| <i>S. V. Rajashekararadhya, Vanaja P Ranjan</i>                                                                                   |      |
| Expression-invariant Facial Identification .....                                                                                  | 5151 |
| <i>Pohsiang Tsai, Tich Phuoc Tran, Longbing Cao</i>                                                                               |      |
| Fuzzy Large-Scale Systems Stabilization with Nonlinear State Feedback Controller .....                                            | 5156 |
| <i>Iman Zamani, Nasser Sadati</i>                                                                                                 |      |
| Flight Control System Design with Hierarchy-Structured Dynamic Inversion and Dynamic Control Allocation .....                     | 5162 |
| <i>HuiDong Wang, Jianqiang Yi, Guoliang Fan</i>                                                                                   |      |

|                                                                                                                                                      |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| MR-Damper based Control System .....                                                                                                                 | 5168 |
| <i>Jorge de-J Lozoya-Santos, Ruben Morales-Menendez, Ricardo Ramirez-Mendoza</i>                                                                     |      |
| Wavelet Moment and Improved Adaboost application to Vehicle-logo Location .....                                                                      | 5174 |
| <i>Xiang Pan, Xiang-Nian Huang, Shao-Hui Zhang</i>                                                                                                   |      |
| Distributed Sigma-Point Kalman Filtering for Sensor Networks: Dynamic Consensus Approach .....                                                       | 5178 |
| <i>Yan Zhou, Jianxun Li</i>                                                                                                                          |      |
| Modeling and Simulation on Information Propagation on Instant Messaging Network Based on Two-layer Scale-free Networks with Tunable Clustering ..... | 5184 |
| <i>Yu Wu, Yanrong Yang, Huanzheng Wu, Gongxiao Wang</i>                                                                                              |      |
| Saving the calculating time of the TCNN with nonchaotic simulated annealing strategy .....                                                           | 5189 |
| <i>Zhenning Wang, Wei Lu, Jun Dai</i>                                                                                                                |      |
| Research on Reflective Teaching and Professional Development of English Teachers ....                                                                | 5194 |
| <i>Yanping Pan, Jie Wang</i>                                                                                                                         |      |
| Intelligent Model of Continuous Improvement Mechanisms Scope of QMS .....                                                                            | 5199 |
| <i>Sofiene Hermi, Taieb Ben Romdhane, Raouf Ketata</i>                                                                                               |      |
| Automatic 3D Ear Reconstruction Based on Binocular Stereo Vision .....                                                                               | 5205 |
| <i>Hui Zeng, Zhi-Chun Mu, Kai Wang, Chao Sun</i>                                                                                                     |      |
| A new piecewise-linear stochastic resonance model .....                                                                                              | 5209 |
| <i>Lin Ze Wang, Wenli Zhao</i>                                                                                                                       |      |
| A Harmony Search Algorithm Combined with Differential Operator Applied to Reliability-Redundancy Optimization .....                                  | 5215 |
| <i>Leandro dos Santos Coelho, Diego Luis de Andrade Bernert, Viviana Cocco Mariani</i>                                                               |      |
| A Novel Algorithm for Non-dominated Hypervolume-based Multiobjective Optimization .....                                                              | 5220 |
| <i>Ke Li, Jinhua Zheng, Miqing Li, Cong Zhou, Hui Lv</i>                                                                                             |      |
| A Normative Self-Organizing Migrating Algorithm for Power Economic Dispatch of Thermal Generators with Valve-Point Effects and Multiple Fuels .....  | 5227 |
| <i>Leandro dos Santos Coelho, Rodrigo Clemente Thom de Souza, and Viviana Cocco Mariani</i>                                                          |      |

**Author Index**