2010 10th International Conference on Hybrid Intelligent Systems

(HIS 2010)

Atlanta, Georgia, USA
23 – 25 August 2010

IEEE Catalog Number: CFP10360-PRT
ISBN: 978-1-4244-7363-2

Time	TBD	333	433
Monday, August 23			
08:45-09:30			P1: *Plenary 1*
09:40-10:25			P2: *Plenary 2*
10:25-10:45	C1: *Coffee break*		
14:00-15:30		S2: *Hybrid Fuzzy Systems*	
15:45-17:00		S4: *Hybrid Systems in Applications*	
Tuesday, August 24			
09:00-13:00		S3: *Hybrid Metaheuristics*	
14:00-17:00		SI: *Hybrid neural networks*	

Monday, August 23

08:45 - 09:30

P1: Plenary 1

Yager

09:40 - 10:25

P2: Plenary 2

Tadahiko Murata

10:25 - 10:45

C1: Coffee break

14:00 - 15:30

S2: Hybrid Fuzzy Systems

FCCTF: Fairness Congestion Control for a disTrustful Wireless Sensor Network Using Fuzzy Logic
Mani Zarei (Dept.of Com. Eng., Science and Research Branch, IAU, Tehran, Iran, Iran); Amir Masoud Rahmani (Science and Research Branch, Islamic Azad University Tehran, Iran, Iran); Razieh Farazkish (Science and Research Branch, Islamic Azad University Tehran, Iran, Iran); Sara Zahirnia (Islamic Azad University, Hamadan, Iran, Iran)
pp. 1-6

A Comparison of Positive, Boundary, and Possible Rules Using the MLEM2 Rule Induction Algorithm
Jerzy Grzymala-Busse (University of Kansas, USA); Shantan Marepally (University of Kansas, USA); Yiyu Yao (University of Regina, Canada)
pp. 7-12

A Fuzzy Based Hybrid Multispectral Image Fusion Method Using DWT
Tanish Zaveri (Nirma University, India)
pp. 13-18

On The Use of Fuzzy Rules to Text Document Classification
Tatiane Nogueira (Universidade de São Paulo, Brazil); Heloisa Camargo (Universidade Federal de São Carlos, Brazil); Solange Rezende (Universidade de São Paulo, Brazil)
pp. 19-24

Improving Black Box Testing By Using Neuro-Fuzzy Classifiers and Multi-Agent Systems
Marcos Álvares (University of Pernambuco, Brazil); Julio Fort (Federal University of Pernambuco,

Brazil); Fernando Lima Neto (University of Pernambuco, Brazil)
pp. 25-30

A New Hybrid Nature-Inspired Metaheuristic for Problem Solving Based on the Social Interaction Genetic Algorithm Employing Fuzzy Systems
Otavio Noura Teixeira (Centro Universitário do Estado do Pará (CESUPA), Brazil); Walter Lobato (Centro Universitário do Estado do Pará (CESUPA), Brazil); Carlos Yasojima (Centro Universitário do Estado do Pará (CESUPA), Brazil); Felipe Brito (Universidade Federal do Pará, Brazil); Artur Teixeira (Universidade Federal do Pará, Brazil); Roberto Oliveira (Universidade Federal do Pará, Brazil)
pp. 31-36

15:45 - 17:00

S4: Hybrid Systems in Applications

Internet Traffic Classification Using a Hidden Markov Model
Jose Everardo Bessa Maia (State University of Ceara, Brazil); Raimir Holanda (University of Fortaleza, Brazil)
pp. 37-42

Feature Selection Algorithm for Classification of Multispectral MR Images Using Constrained Energy Minimization
Geng-Cheng Lin (National Central University, Taiwan); Wen-June Wang (National Central University, TAIWAN, Taiwan); Wang Chuin-Mu (National Chinyi University of Technology, Taiwan)
pp. 43-46

Necessity-Matching Approach for Translated, Rotated and Scale Characters Recognition From Map
Guang Xiao Tian (University of Electronic Science and Technology of China, P.R. China); Yong Da Zhu (University of Electronic Science and Technology of China, P.R. China)
pp. 47-50

An Intelligent Web Interface to Generate and Update Adaptive Virtual Environments
Marcus Aquino (Federal University of Campina Grande, Brazil); Fernando Souza (Federal University of Pernambuco, Brazil)
pp. 51-54

A Short-Term Bus Load Forecasting System
Ricardo Salgado (University of Alfenas, Brazil); Takaaki Ohishi (University of Campinas, Brazil); Rosangela Ballini (University of Campinas, Brazil)
pp. 55-60

Evaluating Classification Methods Applied to Multi-Label Tasks in Different Domains
Araken Santos (Federal University of RN, Brazil); Anne Canuto (Federal University of RN, Brazil); Antonino Feitosa Neto (Federal University of RN, Brazil)
pp. 61-66

On The Improvement Of Knowledge Management Status Through Case-Based Reasoning In A Hybrid Approach
Emilio Corchado (University of Burgos, Spain); Aitor Mata (University of Salamanca, Spain); Alvaro Herrero (University of Burgos, Spain); Lourdes Sáiz (University of Burgos, Spain)
pp. 67-72

Aiida-Sql: an Adaptive Intelligent Intrusion Detector Agent For Detecting Sql Injection Attacks
Cristian Pinzón (University of Salamanca, Spain); Juan De Paz (University of Salamanca, Spain); Javier Bajo (University of Salamanca, Spain); Alvaro Herrero (University of Burgos, Spain); Emilio Corchado (University of Burgos, Spain)
pp. 73-78

Tuesday, August 24

09:00 - 13:00

S3: Hybrid Metaheuristics

Pavel Kromer (VSB-Technical University of Ostrava, FEECS, Czech Republic); Vaclav Snasel (VSB-Technical University of Ostrava, FEECS, Czech Republic); Jan Platos (VSB-Technical University of Ostrava, FEECS, Czech Republic); Ajith Abraham (Machine Intelligence Research Labs (MIR Labs), USA)
pp. 147-152

Circular Antenna Array Synthesis with a Differential Invasive Weed Optimization Algorithm
Annirudha Basak (Jadavpur University, India); Siddharth Pal (Jadavpur University, India); Swagatham Das (Jadavpur University, India); Ajith Abraham (Machine Intelligence Research Labs (MIR Labs), USA)
pp. 153-158

A Gaussian Artificial Immune System for Multi-Objective Optimization in Continuous Domains
Pablo Castro (Unicamp, Brazil); Fernando J Von Zuben (State University of Campinas, Brazil)
pp. 159-164

An Integral Approach for Geno-Simulated Annealing
Mostafa Hassan (University of Waterloo, Canada); Fakhri Karray (University of Waterloo, Canada); Mohamed Kamel (University of Waterloo, Canada); Abbas Ahmadi (University of Waterloo, Canada)
pp. 165-170

A New Third Order Particle Swarm Optimization and Applications to Test Various Functions
Hwan Kang (Myongji University, Korea); Min woo Kwon (Myongji University, Korea); Hwan gil Bae (Myongji University, Korea)
pp. 171-174

Examination of the Performance of Objective Reduction Using Correlation-Based Weighted-Sum for Many Objective Knapsack Problems
Akinori Taki (Kansai University, Japan); Tadahiko Murata (Kansai University, Japan)
pp. 175-180

Mixing Theory of Retroviruses and Genetic Algorithm to Build a New Nature-Inspired Meta-Heuristic for Real-Parameter Function Optimization Problems
Renato Moreira (Universidade Federal do Pará, Brazil); Otavio Noura Teixeira (Centro Universitário do Estado do Pará (CESUPA), Brazil); Roberto Oliveira (Universidade Federal do Pará, Brazil)
pp. 181-184

14:00 - 17:00

SI: Hybrid neural networks

Hybrid System for a Never-Ending Unsupervised Learning
Aldo F. Dragoni (Università Politecnica delle Marche, Italy); Germano Vallesi (Università Politecnica delle Marche, Italy); Paola Baldassarri (Università Politecnica delle Marche, Italy)
pp. 185-190

Modular Robot with Adaptive Connection Topology
Pitoyo Hartono (Future University Hakodate, Japan)
pp. 191-196

Metaheuristic Techniques for Support Vector Machine Model Selection
James Blondin (Armstrong Atlantic State University, USA); Ashraf Saad (AAU, USA)
pp. 197-200

A Hybrid Approach for IEEE 802.11 Intrusion Detection Based on AIS, MAS and Naïve Bayes
Moisés Danziger (School of Electrical and Computer Engineering - UNICAMP, Brazil); Fernando Lima Neto (University of Pernambuco, Brazil)
pp. 201-204

The Application of a CICA Neural Network on Farsi License Plates Recognition
Mojdeh Akhtari (Qazvin Islamic Azad University, Iran); Karim Faez (Amirkabir University of Technology, Iran)
pp. 205-208

DPF-Based Japanese Phoneme Recognition Using Tandem MLNs
Mohammed Rokibul Alam Kotwal (United International University, Bangladesh); Manoj Banik (Ahsanullah University of Science and Technology, Bangladesh); Gazi Md. Moshfiqul Islam (United International University, Bangladesh); Shahadat Hossain (United International University, Bangladesh); Foyzul Hassan (Enosis Solutions, Bangladesh); Mohammad Hasan (Blueliner