Monday, July 19, 2010

[FLT-MVL-FM] Fuzzy Logic Theory, MVL, and Fuzzy Measures
Monday, July 19, 8:40AM-10:00AM, Room: 129
Chair: Valerie Cross

8:40AM *A characterization of ordinal sums being t-norms on bounded lattices by ordinal sums of drastic t-norms* [#596]*.* Jesus Medina

9:00AM *Type <1,1> Fuzzy Quantifiers Determined by Fuzzy Measures* [#216]*.* Antonin Dvorak and Michal Holcapek

9:20AM *Local Fusion with Fuzzy Integrals* [#240]*.* Ahmed Chamseddine Ben Abdallah, Hichem Frigui and Paul Gader

[T2FL] Type-2 Fuzzy Logic
Monday, July 19, 8:40AM-10:00AM, Room: 130
Chair: Christian Wagner

8:40AM *Evaluating Location Choices Using Perceptual Computer Approach* [#244]*.* Shilian Han and Jerry M. Mendel

9:00AM *Stability Analysis of Discrete Type-2 TSK Fuzzy Systems with Interval Uncertainty* [#288]*.* Saeed Jafarzadeh and M. Sami Fadali

9:20AM *Centroid of a General Type-2 Fuzzy Set Computed by Means of the Centroid-Flow Algorithm* [#66]*.* Daoyuan Zhai and Jerry Mendel

9:40AM *Importance Sampling Based Defuzzification for General Type-2 Fuzzy Sets* [#610]*.* Ondrej Linda and Milos Manic

[FC&IS-1] Fuzzy Control and Intelligent Systems I
Monday, July 19, 8:40AM-10:00AM, Room: 131
Chair: Joao M.C Sousa

8:40AM *Fuzzy Frequency Response: Definition and Analysis for Complex Dynamic Systems* [#12]*.* Carlos Cesar Teixeira Ferreira and Ginalber Luiz de Oliveira Serra

9:00AM *Stability Analysis for a Type of Proportional T-S Fuzzy Control Systems Using the Off-Axis Circle Criterion* [#131]*.* Kairui Cao, Xiaozhi Gao, Xiaojun Ban and Xianlin Huang

9:20AM *Fuzzy Inference Models For Discrete EVent Systems* [#138]*.* Paul-Antoine Bisgambiglia, Laurent Capocchi, Paul Bisgambiglia and Stephane Garredu

[S123-1] Evolutionary Fuzzy Systems I
Monday, July 19, 8:40AM-10:00AM, Room: 132
Chair: Rafael Alcala

8:40AM *A Genetic Learning of Fuzzy Relational Rules* [#209]*.* Yoel Caises, Antonio Gonzalez, Enrique Leyva and Raul Perez

9:00AM *A Genetic Algorithm for Tuning Fuzzy Rule-Based Classification Systems with Interval-Valued Fuzzy Sets* [#326]*.* Jose Antonio Sanz, Alberto Fernandez, Humberto Bustince and Francisco Herrera

9:20AM *Accuracy Improvement of Genetic Fuzzy Rule Selection with Candidate Rule Addition and Membership Tuning* **[#620]**. Yusuke Nojima, Yutaka Kaisho and Hisao Ishibuchi

9:40AM *Preprocessing vague imbalanced datasets and its use in genetic fuzzy classifiers* **[#566]**. Ana M. Palacios, Luciano Sánchez and Inés Couso

[MMP] Poster Session: Fuzzy Information Processing
Monday, July 19, 9:00AM-12:00PM, Room: Foyer 2
Chair: Christophe Marsala

P101 *Detecting Illegal File Sharing in Peer-to-Peer Networks using Fuzzy Queries* **[#292]**. Marlene Goncalves, Graciela Perera and Stephen Rodabaugh

P102 *A new factor for computing the relevance of a document to a query* **[#400]**. Mohand Boughanem, Ihab Mallak and Henri Prade

P103 *Contextualized Access to Digital Medical Records* **[#624]**. B. Prados-Suárez, C. Molina, C. Peña Yáñez and M. Prados de Reyes

P104 *On (Weighted) k-Order Fuzzy Connectives* **[#383]**. Hoel Le Capitaine and Carl Frelicot

P105 *Density Oriented Approach to Identify Outliers and to Get Noiseless Clusters in Fuzzy C Means* **[#82]**. Prabhjot Kaur and Anjana Gosain

P106 *FACISME: Fuzzy Associative Classification using Iterative Scaling and Maximum Entropy* **[#466]**. Ashish Mangalampalli and Vikram Pudi

P107 *FPrep: Fuzzy Clustering driven Efficient Automated Pre-processing for Fuzzy Association Rule Mining* **[#469]**. Ashish Mangalampalli and Vikram Pudi

[PT&IP] Possibility Theory and Imprecise Probability
Monday, July 19, 11:30AM-12:50PM, Room: 129
Chair: Vladik Kreinovich

11:30AM *Fuzzy belief structures viewed as classical belief structures: a practical viewpoint.* **[#113]**. Sebastien Destercke

11:50AM *CECM : Adding pairwise constraints to evidential clustering* **[#435]**. Violaine Antoine, Benjamin Quost, Marie-Helene Masson and Thierry Denoeux

12:10PM *Towards an interval-valued estimation of the density* **[#403]**. Bilal Nehme and Olivier Strauss

12:30PM *Continuous Fuzzy Sets as Probabilities of Continuous Fuzzy Events* **[#412]**. Elisabeth Rakus-Andersson

[S019-1] Applications of Type-2 Fuzzy Systems I
Monday, July 19, 11:30AM-12:50PM, Room: 130
Chair: Hani Hagras

11:30AM *Examining the Continuity of Type-1 and Interval Type-2 Fuzzy Logic Systems* **[#40]**. Dongrui Wu and Jerry Mendel

11:50AM *An Approach for the Generation and Adaptation of zSlices based General Type-2 Fuzzy Sets from Interval Type-2 Fuzzy Sets to Model Agreement with Application to Intelligent Environments* **[#336]**. Christian Wagner and Hani Hagras

12:10PM *Modelling of Dynamic Micromilling Cutting Forces Using Type-2 Fuzzy Rule-Based System* **[#201]**. Qun Ren, Luc Baron, Krzysztof Jemielniak and Marek Balazinski

12:30PM *Inventory Optimisation with an Interval Type-2 Fuzzy Model* **[#228]**. Simon Miller, Mario Gongora and Robert John

[FC&IS-2] Fuzzy Control and Intelligent Systems II
Monday, July 19, 11:30AM-12:50PM, Room: 131
Chair: Thierry M. Guerra

11:30AM *MOEA Based Hierarchical Fuzzy Control over the Set of User-Defined Initial Conditions* **[#139]**. Juliusz Zajaczkowski and Brijesh Verma

11:50AM *Stable Indirect Adaptive Fuzzy-Neuro Control for a Class of Nonlinear Systems* **[#203]**. Hai-Jun Rong and Guang-She Zhao

12:10PM *A Reinforcement Learning Fuzzy Controller for the Ball and Plate System* **[#258]**. Nima Mohajerin, Mohammad Bagher Menhaj and Ali Doustmohammadi

[S123-2] Evolutionary Fuzzy Systems II
Monday, July 19, 11:30AM-12:50PM, Room: 132
Chair: Francisco Herrera

11:30AM *A SPEA2-based Genetic-Fuzzy Mining Algorithm* **[#434]**. Chun-Hao Chen, Tzung-Pei Hong and Vincent S. Tseng

11:50AM *Effects of Fine Fuzzy Partitions on the Generalization Ability of Evolutionary Multi-Objective Fuzzy Rule-Based Classifiers* **[#621]**. Hisao Ishibuchi, Yusuke Nakashima and Yusuke Nojima

12:10PM *A Multi-objective Evolutionary Algorithm with an Interpretability Improvement Mechanism for Linguistic Fuzzy Systems with Adaptive Defuzzification* **[#613]**. Antonio A. Marquez Hernandez, Francisco A. Marquez Hernandez and Antonio Peregrin Rubio

12:30PM *Interpretable Fuzzy Modeling using Multi-Objective Immune-Inspired Optimization Algorithms* **[#539]**. Jun Chen and Mahdi Mahfouf

[FM] Fuzzy Mathematics
Monday, July 19, 2:30PM-3:30PM, Room: 129
Chair: Jesus Medina

2:30PM *Devaney Chaotic Fuzzy Discrete Dynamical Systems* **[#450]**. Jiri Kupka

2:50PM *Fuzzy Environmental Quality Index* **[#470]**. Jose Arnaldo Frutuoso Roveda, Mauricio Tavares Mota, Sandra R. M. Masalskiene Roveda, Roberto Wagner Lourenco and Antonio Cesar Germano Martins

[S019-2] Applications of Type-2 Fuzzy Systems II
Monday, July 19, 2:30PM-3:30PM, Room: 130
Chair: Simon Coupland

2:30PM *Type-2 Fuzzy Load Regulation Of A Servomechanism With Backlash Using Only Motor Position Measurements* **[#245]**. Nohe R. Cazarez-Castro, Luis T. Aguilar, Oscar Castillo and Juan R. Castro

2:50PM *A Novel Dual-Surface Type-2 Controller for Micro Robots* **[#254]**. Phil Birkin and Jon Garibaldi

[FSR] Fuzzy Systems for Robotics
[FC&IS-3] Fuzzy Control and Intelligent Systems III
Monday, July 19, 2:30PM-3:30PM, Room: 131
Chair: Fernando Gomide

2:30PM *Selective Stabilization of Takagi-Sugeno Fuzzy Systems* **[#285]**. Eduardo S. Tognetti, Ricardo C. L. F. Oliveira and Pedro L. D. Peres

2:50PM *Image Based Visual Servoing of a 7 DOF Robot Manipulator Using Distributed Fuzzy Proportional Controller* **[#327]**. Indrazno Siradjuddin, Laxmidhar Behera, T.M. McGinnity and Sonya Coleman

3:10PM *Type III Fuzzy Impulsive Systems and Stability Analysis* **[#487]**. Iman Zamani and Masoud Shafie

[S123-3] Evolutionary Fuzzy Systems III
Monday, July 19, 2:30PM-3:30PM, Room: 132
Chair: Hisao Ishibuchi

2:30PM *Enhancing the Interpretability of Genetic Fuzzy Classifiers in Land Cover Classification from Hyperspectral Satellite Imagery* **[#514]**. Dimitris G. Stavrakoudis, Georgia N. Galidaki, Ioannis Z. Gitas and John B. Theocharis

2:50PM *Exploiting a coevolutionary approach to concurrently select training instances and learn rule bases of Mamdani fuzzy systems* **[#449]**. Michela Antonelli, Pietro Ducange and Francesco Marcelloni

3:10PM *A Methodology to Generate Compact and Accurate Fuzzy Knowledge Bases based on Fuzzy Clustering and Evolutionary Selection and Tuning* **[#615]**. Ruth M. Toscano, Javier Aroba and Antonio Peregrin

[MAP] Poster Session: Fuzzy systems modelling and identification
Monday, July 19, 3:00PM-6:00PM, Room: Foyer 2
Chair: Rosangela Ballini

P301 *Nonlinear System Modeling via Hybrid System Representation of Recurrent Fuzzy Systems* **[#35]**. Andreas Schwung and Juergen Adamy

P302 *FuzzyCN2: An Algorithm for Extracting Fuzzy Classification Rule Lists* **[#177]**. Pablo Martín-Muñoz and Francisco J. Moreno-Velo

P303 *Interval Type-2 Fuzzy Model Based Indirect Adaptive Tracking Control Design for Nonlinear Systems With Dead-Zones* **[#199]**. Ho-Sheng Chen and Wen-Shyong Yu

P304 *Takagi-Sugeno Type Fuzzy Automaton Model* **[#275]**. Janos Grantner and George Fodor

P305 *Fuzzy Modeling for Vehicle Maneuver Detection in a Scene* **[#323]**. Fernando Terroso-Saenz and Mercedes Valdes-Vela

[S060-1] Human symbiotic system I
Monday, July 19, 3:30PM-4:30PM, Room: 129
Chair: Daisuke Katagami, Yoichiro Maeda

3:30PM *Clustering Observed Body Image for Imitation based on Value System* [#515]. Yoshihiro Tamura, Yasutake Takahashi and Minoru Asada

3:50PM *Rhythm Generation Method for Automatic Musical Composition Using Genetic Algorithm* [#312]. Yoichiro Maeda and Yusuke Kajihara

4:10PM *Localization of Human in Informationally Structured Space Based on Sensor Networks* [#531]. Takenori Obo, Naoyuki Kubota and Beom Lee

[S019-3] Applications of Type-2 Fuzzy Systems III
Monday, July 19, 3:30PM-4:30PM, Room: 130
Chair: Hani Hagras

3:30PM *Simple Type-2 T-S Fuzzy Control System for Gyros* [#95]. R. Rajesh, C. Thilagavathy, J. Satheeshkumar, B. Shanmuga Priya, K. Priya and T. Sureshkumar

4:10PM *Stability Analysis of SIRMs Based Type-2 Fuzzy Logic Control Systems* [#141]. Chengdong Li, Jianqiang Yi and Tiechao Wang

[FC&IS-4] Fuzzy Control and Intelligent Systems IV
Monday, July 19, 3:30PM-4:30PM, Room: 131
Chair: Hamid Berenji

3:30PM *Reducing False Positives through Fuzzy Alert Correlation in Collaborative Intelligent Intrusion Detection Systems - A Review* [#404]. Huwaida Elshoush and Izzeldin Osman

3:50PM *LMI-based Stability Analysis of Fuzzy Model-Based Control Systems Using Approximated Polynomial Membership Functions* [#320]. Mohammad Narimani and H.K. Lam

4:10PM *Fuzzy Logic Controller for Freeway Ramp Metering with Particle Swarm Optimization and PARAMICS platform* [#391]. Jianxin Xu, Xinjie Zhao and Dipti Srinivasan

[S123-4] Evolutionary Fuzzy Systems IV
Monday, July 19, 3:30PM-4:30PM, Room: 132
Chair: Yusuke Nojima

3:30PM *Effect of Data Quality on Habitat Preference Evaluation for Japanese Medaka (Oryzias Latipes) using A Simple Genetic Fuzzy System* [#436]. Shinji Fukuda

3:50PM *Genetic Tuning of a Laser Pointer Environment Control Device System for Handicapped People with Fuzzy Systems* [#581]. Francisco Chavez, Francisco Fernandez, Jesus Alcala-Fdez, Rafael Alcala, Francisco Herrera and Gustavo Olague

4:10PM *Genetic Fuzzy System for Predictive and Decision Support Modelling in E-learning* [#198]. Angela Nebot, Francisco Mugica, Felix Castro and Jesus Acosta

[FD-MMI] Fuzzy Decisions / MMI
Monday, July 19, 3:30PM-4:30PM, Room: 118

3:30PM *An Application of Fuzzy Topsis Method for Supplier Selection* [#266]. Mehmet Sevkli, Selim

3:30PM *An Application of Fuzzy Topsis Method for Supplier Selection* **[#266]**. Mehmet Sevkli, Selim Zaim, Ali Turkyilmaz and Metin Satir

3:50PM *Modeling of Human Intention Estimation Process in Social Interaction Scene* **[#247]**. Ayami Yokoyama and Takashi Omori

4:10PM *On the Comparison of Fuzzy Interpolation and Other Interpolation Methods in High Accuracy Measurements* **[#5]**. Ying Bai and Dali Wang

[S060-2] Human symbiotic system II
Monday, July 19, 4:50PM-6:30PM, Room: 129
Chair: Yoichiro Maeda, Daisuke Katagami

4:50PM *Acquisition of Robot Control Rules by Evolving MDDs* **[#249]**. Masashi Sakai, Yutaro Tomoto, Masayoshi Kanoh, Tsuyoshi Nakamura and Hidenori Itoh

5:10PM *Evaluating ideal combinations of Necktie and Y-shirt by Self-organization Map for the coordination system* **[#217]**. Hoshino Yukinobu

5:30PM *A Self-sufficiency Model Using Urge System* **[#433]**. Teruaki Ando and Masayoshi Kanoh

5:50PM *Investigation of Social Adaptive Skills by Cross-cultural Simulation Game and KiSS-18* **[#371]**. Daisuke Katagami, Hidefumi Ohmura and Katsumi Nitta

6:10PM *Visualization of Similarity Relationships by Onomatopoeia Thesaurus Map* **[#491]**. Yutaro Tomoto, Tsuyoshi Nakamura, Masayoshi Kanoh and Takanori Komatsu

[S019-4] Applications of Type-2 Fuzzy Systems IV
[S021-1] Type-2 Fuzzy Logic Theory I
Monday, July 19, 4:50PM-6:30PM, Room: 130
Chair: Simon Coupland and Christian Wagner

4:50PM *Type-2 fuzzy conceptual spaces* **[#169]**. John Rickard, Janet Aisbett and Greg Gibbon

5:10PM *A Type-2 Fuzzy Logic Based Model for Renewable Wind Energy Generation* **[#322]**. Mina Zaher, Hani Hagras, Amr Khairy and Mohamed Ibrahim

5:30PM *A Quantitative Comparison of Interval Type-2 and Type-1 Fuzzy Logic Systems: First Results* **[#214]**. Jerry Mendel

5:50PM *Derivation of the analytical structure of Symmetrical IT2 fuzzy PD and PI controllers* **[#319]**. Maowen Nie and Woei Wan Tan

6:10PM *Type-2 Defuzzification: Two Contrasting Approaches* **[#268]**. Sarah Greenfield, Francisco Chiclana, Simon Coupland and Robert John

[FC&IS-5] Fuzzy Control and Intelligent Systems V
Monday, July 19, 4:50PM-6:30PM, Room: 131
Chair: Dipti Srinivasan

4:50PM *Robust Smooth Sliding Type-2 Interval Fuzzy Control For Uncertain System* **[#305]**. Malik Manceur, Najib Essounbouli and Abdelaziz Hamzaoui

5:10PM *Automatic Design of a Least Complicated Hierarchical Fuzzy System* **[#413]**. Taher M. Jelleli and Adel M. Alimi

5:30PM *Adaptive Type-2 Fuzzy Sliding Mode Control for Chaos Synchronization of Uncertain Chaotic Systems* **[#414]***.* Tsung-Chih Lin, Ming-Che Chen, Mehdi Roopaei and Bijan Ranjbar Sahraei

5:50PM *Stabilization of Nonlinear Systems with Piecewise Bilinear Models derived from Fuzzy If-then Rules with Singletons* **[#548]***.* Tadanari Taniguchi and Michio Sugeno

6:10PM *Design of an Adaptive Interval Type-2 Fuzzy Logic Controller for the Position Control of a Servo System with an Intelligent Sensor* **[#11]***.* Erdal Kayacan, Okyay Kaynak, Rahib Abiyev, Jim Tørresen, Mats Høvin and Kyrre Glette

[FC] Fuzzy Clustering
Monday, July 19, 4:50PM-6:30PM, Room: 132
Chair: Mika Sato-Ulic

4:50PM *A New Approach to Clustering Using Eigen Decomposition* **[#50]**. Thomas Runkler and Florian Steinke

5:10PM *Scalable Fuzzy Neighborhood DBSCAN* **[#56]***.* Jonathon Parker, Lawrence Hall and Abraham Kandel

5:30PM *A Relational Dual of the Fuzzy Possibilistic c-Means Algorithm* **[#509]***.* Isaac Sledge, James Bezdek, Timothy Havens and James Keller

5:50PM *Segmentation and outlier removal in 3D line identification based on fuzzy clustering* **[#360]***.* Thach B. Nguyen and Lee Sukhan

6:10PM *Ontology-based Intelligent System for Malware Behavioral Analysis* **[#365]**. Hsien-Der Huang, Tsung-Yen Chuang, Yi-Lang Tsai and Chang-Shing Lee

Tuesday, July 20, 2010

[AR] Approximate Reasoning
Tuesday, July 20, 8:00AM-10:00AM, Room: 129
Chair: Trevor Martin

8:00AM *An Efficient Fuzzy Unification Method and its Implementation into the Bousi-Prolog System* **[#178]**. Pascual Julian-Iranzo and Clemente Rubio-Manzano

8:20AM *Monotonicity of implicative fuzzy models* **[#468]**. Martin Štěpnička and Bernard De Baets

8:40AM *Measuring instability in normal residuated logic programs: adding information* **[#595]**. Nicolas Madrid and Manuel Ojeda-Aciego

9:00AM *Fuzzy Functional Inference Method* **[#543]**. Hirosato Seki and Masaharu Mizumoto

9:20AM *Extended Concept of Logic Minimization for Rule Reduction* **[#25]**. Rolly Intan and Noboru Takagi

9:40AM *Case-Based Reasoning Retrieval and Reuse Using Case Resemblance Hypergraphs* **[#587]**. Titilola Fanoiki, Isabela Drummond and Sandra Sandri

[S021-2] Type-2 Fuzzy Logic Theory II
Tuesday, July 20, 8:00AM-10:00AM, Room: 130
Chair: Robert John

8:00AM *Efficient Algorithms for Computing a Class of Subsethood and Similarity Measures for Interval Type-2 Fuzzy Sets* **[#43]**. Dongrui Wu and Jerry Mendel

8:20AM *Intersection and union of type-n fuzzy sets* **[#170]**. Janet Aisbett, John Rickard and David Morgenthaler

8:40AM *The Monotonicity and Convexity of Unnormalized Interval Type-2 TSK Fuzzy Logic Systems* **[#194]**. Tiechao Wang, Jianqiang Yi and Chengdong Li

9:00AM *Hedge Algebraic Type-2 Fuzzy Sets* **[#200]**. Tran Dinh Khang, Phan Anh Phong, Dinh Khac Dong and Cao Minh Trang

9:20AM *General Type-2 FLS with Uncertainty Generated by Fuzzy Rough Sets* **[#458]**. Janusz Starczewski

9:40AM *A Novel Alpha-cut Representation for Type-2 Fuzzy Sets* **[#232]**. Hussam Hamrawi, Simon Coupland and Robert John

[S116] Hybrid Fuzzy-Model-Based Control Systems
Tuesday, July 20, 8:00AM-10:00AM, Room: 131
Chair: H.K. Lam

8:00AM *Stabilization of Fuzzy Retarded Systems with Input and State Delays* **[#79]**. Ji-Chang Lo and YuChi Wang

8:20AM *H-infinity Control for Fuzzy Sampled-Data Systems with Discrete and Distributed Delays* **[#74]**. Tomoaki Ishihara and Jun Yoneyama

8:40AM *Stability Analysis of Sampled-Data Output-Feedback Polynomial Fuzzy-Model-Based Control Systems* **[#174]**. H.K. Lam and Mohammad Narimani

9:00AM *Stability Analysis of Nonlinear Systems via Multiple Mixed Max-Min based Lyapunov Functions* **[#86]**. Kazuo Tanaka, Hiroshi Ohtake, Takehito Yamaguchi and Hua O Wang

9:20AM *Adaptive T-S Fuzzy Controller Design using Fuzzy Approximators* **[#101]**. Hugang Han and Takamitsu Koshiro

9:40AM *A Takagi-Sugeno Fuzzy-Model-Based Modeling Method* **[#143]**. Ming-Ying Hsiao, Chi-Hua Liu, Shun-Hung Tsai, Kun-Lin Tsai, Pei-Shin Chen and Ta-Tau Chen

[S005-1] Evolving Fuzzy Systems I
Tuesday, July 20, 8:00AM-10:00AM, Room: 132
Chair: Plamen Angelov

8:00AM *Text Fragment Extraction using Incremental Evolving Fuzzy Grammar Fragments Learner* **[#265]**. Nurfadhlina Mohd Sharef and Yun Shen

8:20AM *Dynamic K-Nearest Neighbors For The Monitoring Of Evolving Systems* **[#442]**. Laurent Hartert, Moamar Sayed Mouchaweh and Patrice Billaudel

8:40AM *Fault Tolerant Control Using Evolving Fuzzy Modeling* **[#578]**. D. Chivala, L.F. Mendonca, J.M.C. Sousa and J.M.G. Sá da Costa

9:00AM *Temporal and Spatial Evolving Knowledge Base System with Sequential Clustering* **[#516]**. Gancho Vachkov

9:20AM *Real Time Human Activity Recognition from Wireless Sensors using Evolving Fuzzy Systems* **[#348]**. Javier Andreu and Plamen Angelov

[TuMP] Poster Session: Fuzzy Decision Making
Tuesday, July 20, 9:00AM-12:00PM, Room: Foyer 2
Chair: Ricardo Coêlho Silva

P501 *Fuzzy Nash Equilibrium in Fuzzy Games Using Ranking Fuzzy Numbers* **[#215]**. Alireza Chakeri, Nasser Sadati and Setareh Sharifian

P502 *A Kind of Fuzzy Weights Representation for Inner Dependence AHP* **[#347]**. Shin-ichi Ohnishi, Takahiro Yamanoi and Hideyuki Imai

P503 *Decision Support Systems in Multicriteria Groups: an Approach Based on Fuzzy Rules* **[#374]**. Fabio Santos and Heloisa Camargo

P504 *Probabilistic Aggregation Operators with the Induced Generalized OWA Operator* **[#568]**. Jose M. Merigo and Kurt J. Engemann

P505 *An algorithm for rule selection on fuzzy rule-based systems applied to the treatment of diabetics and detection of fraud in electronic payment* **[#223]**. Farida Benmakrouha, Christiane Hespel and Edouard Monnier

P506 *Using Interval Type-2 Fuzzy Logic to Translate Emotion Words From Spanish to English* **[#529]**. Abe Kazemzadeh

P507 *Emotion Control by Audio-Visual Stimulus Using Fuzzy Automata* **[#563]**. Aruna Chakraborty, Amit Konar, Anisha Halder and Enjun Kim

P508 *A Generalized Four-Step Inference Method for Fuzzy Quantified and Truth-Qualified Natural Language Propositions* **[#67]**. Wataru Okamoto, Shun'ichi Tano, Atsushi Inoue and Ryosuke Fujioka

P509 *Towards an Automated Reasoning for Computing with Words* **[#517]**. Elham S. Khorasani and Shahram Rahimi

P510 *Diversification of Fuzzy Association Rules to Improve Prediction Accuracy* **[#549]**. Bilal Sowan, Keshav Dahal, Alamgir Hossain and Mohammad Alam

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[PL-2] Plenary Talk 2: Rudolf Kruse
"Temporal Aspects in Data Mining"
Tuesday, July 20, 10:30AM-11:30AM, Room: 117
Chair: Janusz Kacprzyk

[FUZZ / IT-1] Invited Talk 1: Ronald Yager
"Intelligent Learning Methods for Soft Computing Systems"
Tuesday, July 20, 11:30AM-12:50PM, Room: 117
Chair: Piero Bonissone

[S098-1] Interval and Fuzzy Techniques I
Tuesday, July 20, 2:30PM-3:30PM, Room: 129
Chair: Vladik Kreinovich

2:30PM *Multi-Objective Optimization under Positivity Constraints, with a Meteorological Example* **[#97]**. Aline Jaimes, Craig Tweedie, Tanja Magoc, Vladik Kreinovich and Martine Ceberio

2:50PM *The Checklist Paradigm Based Non-Commutative Interval Systems of Early Zadeh and Their Crispness and Fuzziness* **[#488]**. Eunjin Kim

3:10PM *Why Polynomial Formulas in Soft Computing, Decision Making, etc.?* **[#78]**. Olga Kosheleva and Martine Ceberio

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[S072-1] Linguistic Description of Visual Information I
Tuesday, July 20, 2:30PM-3:30PM, Room: 130
Chair: Daniel Sanchez, Sergio Guadarrama

2:30PM *Using FORDBMS for the Linguistic Description of Images* **[#618]**. Sergio Jaime-Castillo, Juan Miguel Medina and Daniel Sanchez

2:50PM *Ontology matching for the semantic annotation of images* **[#377]**. Nicolas James, Konstantin Todorov and Celine Hudelot

3:10PM *Describing Images Via Linguistic Features and Hierarchical Segmentation* **[#627]**. Rita Castillo-Ortega, Jesus Chamorro-Martinez, Nicolas Marin, Daniel Sanchez and Jose M. Soto-Hidalgo

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[S009-1] Fuzzy Systems: Control and Hardware I
Tuesday, July 20, 2:30PM-3:30PM, Room: 131
Chair: Oscar Castillo

2:30PM *Implementation Considerations of Fuzzy Logic Control Algorithms* **[#21]**. Dali Wang and Ying Bai

2:50PM *Reactive and Tracking Control of a Mobile Robot in a Distributed Environment Using Fuzzy Logic* **[#289]**. Abraham Melendez, Oscar Castillo, Arnulfo Alanis and Jose Soria

3:10PM *Mitigating the Effect of Background Noise in Sound Based Helicopter Control* **[#410]**. Benjamin N. Passow, Simon Coupland and Mario A. Gongora

[HFS-1] Hybrid Fuzzy Systems I
Tuesday, July 20, 2:30PM-3:30PM, Room: 132
Chair: Oscar Cordon

2:30PM *Design and Implementation of a Neuro-Fuzzy System for Longitudinal Control of Autonomous Vehicles* **[#478]**. Joshue Perez, Agustin Gajate, Vicente Milanes, Enrique Onieva and Matilde Santos

2:50PM *Function Approximation Performance of Fuzzy Neural Networks Based on Frequently Used Fuzzy Operations and a Pair of New Trigonometric Norms* **[#338]**. László Gál, Rita Lovassy and László T. Kóczy

3:10PM *A Probabilistic Fuzzy Approach for Sensor Location Estimation in Wireless Sensor Networks* **[#483]**. Mahnaz Kadkhoda, Mohammad Reza Akbarzadeh Totounchi, Mohammad.H. Yaghmaee and Zohreh Davarzani

[TuAP] Poster Session: Fuzzy Control
Tuesday, July 20, 3:00PM-6:00PM, Room: Foyer 2
Chair: Sylvie Galichet

P701 *Stability Analysis of a Class of MIMO Fuzzy Control Systems* **[#80]**. Radu-Emil Precup, Marius L. Tomescu, Emil M. Petriu, Stefan Preitl, Janos Fodor and Daniela Barbulescu

P702 *Robust Adaptive Fuzzy Sliding Mode Control for A Class of Perturbed Strict-Feedback Nonlinear Systems* **[#147]**. Chiang-Cheng Chiang, Ming-Chieh Shih and Chih-Lyang Hwang

P703 *Fuzzy Controller for the High-accuracy Automatic Assembly of Vehicle Headlamps* **[#256]**. Javier Gamez-Garcia, Juan Gomez-Ortega, Alejandro Sanchez-Garcia and Silvia Satorres-Martinez

P704 *Exact Linearization and Fuzzy Logic Applied to the Control of a Magnetic Levitation System* **[#477]**. Luiz Torres, Carlos A. V. Vasconcelos Jr., Leizer Schnitman and J. A. M. Felippe de Souza

P705 *On-line Monitoring of Oil in Water Using Transmitted-scattered Lights and Clustering-based Hierarchical TSK Fuzzy Systems* **[#512]**. Gyeongdong Baek, Jaewoo Cho, Moon-Ho Choi and Sungshin Kim

P706 *Exact Solutions to Fuzzy PD-LMIs via SOS* **[#71]**. Ji-Chang Lo and Ming-Zhe Liu

[S098-2] Interval and Fuzzy Techniques II
Tuesday, July 20, 3:30PM-4:30PM, Room: 129
Chair: Vladik Kreinovich

3:30PM *Towards a More Natural Proof of Metrization Theorem for Space-Times* **[#490]**. Vladik Kreinovich and Olga Kosheleva

3:50PM *Combining Climate Temperature Models Through Fuzzy Interval Regression: Application to the La Plata Basin* **[#401]**. Luiz Rodrigo Tozzi, Alexandre Evsukoff, Amory Bisserier, Reda Boukezzoula and Sylvie Galichet

4:10PM *Towards More Detailed Value-Added Teacher Assessments* **[#519]**. Karen Villaverde and Olga Kosheleva

[S072-2] Linguistic Description of Visual Information II - Fuzzy data summarization
Tuesday, July 20, 3:30PM-4:30PM, Room: 130
Chair: Daniel Sanchez, Sergio Guadarrama

3:30PM *A Fuzzy Choquet Integral with an Interval Type-2 Fuzzy Number-Valued Integrand* **[#352]**. Timothy C. Havens, Derek T. Anderson and James M. Keller

3:50PM *Linguistic Description of Traffic in a Roundabout* **[#237]**. Gracian Trivino, Angel Sanchez, Antonio Montemayor, Juan Pantrigo,Raul Cabido and Eduardo G. Pardo

4:10PM *Cohen's Kappa coefficient as a performance measure for feature selection* **[#417]**. Susana Vieira, Uzay Kaymak and Joao Sousa

[FLI&FA] Fuzzy Logic in Industrial and Financial Applications
Tuesday, July 20, 3:30PM-4:30PM, Room: 131
Chair: Woei Wan Tan

3:30PM *Knowledge Extraction of the Behaviour of Software Developers by the Analysis of Time Recording Logs* **[#382]**. Arturo Peralta, Francisco P. Romero, Jose A. Olivas and Macario Polo

3:50PM *Fuzzy approaches for robust job shop rescheduling* **[#208]**. Patrick Moratori, Sanja Petrovic and Jose Antonio Vazquez Rodriguez

4:10PM *A Logical Analysis of Mamdani-type Fuzzy Inference, II. An Experiment on the Technical Analysis of Financial Markets* **[#499]**. Simone Bova, Pietro Codara, Daniele Maccari and Vincenzo Marra

[HFS-2] Hybrid Fuzzy Systems II
[FS] Fuzzy Statistics
Tuesday, July 20, 3:30PM-4:30PM, Room: 132
Chair: Laszlo Koczy

3:30PM *An On-line Learning Algorithm for Complex Fuzzy Logic* **[#464]**. Sara Aghakhani and Scott Dick

3:50PM *Support Vector-Trained Recurrent Fuzzy System* **[#28]**. I-Fang Chung, Chia-Feng Juang and Cheng-Da Hsieh

[S098-3] Interval and Fuzzy Techniques III
[S092] Rough Sets and Extensions
Tuesday, July 20, 4:50PM-6:30PM, Room: 129
Chair: Chris Cornelis, Richard Jensen and Dominik Slezak

4:50PM *Towards Improved Trapezoidal Approximation to Intersection (Fusion) of Trapezoidal Fuzzy Numbers: Specific Procedure and General Non-Associativity Theorem* **[#153]**. Gang Xiang and Vladik Kreinovich

5:10PM *Two New Approaches to Feature Selection with Harmony Search* **[#263]**. Ren Diao and Qiang Shen

5:30PM *Extending Propositional Satisfiability to Determine Minimal Fuzzy-Rough Reducts* **[#33]**. Richard Jensen, Andrew Tuson and Qiang Shen

5:50PM *MICOG Defuzzification Rough-Neuro-Fuzzy System Ensemble* **[#261]**. Marcin Korytkowski, Robert Nowicki, Rafal Scherer and Leszek Rutkowski

6:10PM *Fuzzy-Rough Instance Selection* **[#554]**. Richard Jensen and Chris Cornelis

[FDM&F-1] Fuzzy Data Mining and Forecasting I
Tuesday, July 20, 4:50PM-6:30PM, Room: 130
Chair: Larry Hall

4:50PM *An Adaptive Cluster-Target Covariance based Principal Component Analysis for Interval-Valued Data* **[#62]**. Mika Sato-Ilic

5:10PM *Generalized Cluster Based Fuzzy Model Tree for Data Modeling and Prediction* **[#222]**. Jin-Il Park, Young-Im Cho and Myung-Geun Chun

5:30PM *Learning cooperative linguistic fuzzy rules using fast local search algorithms* **[#276]**. Luis delaOssa, Jose A. Gamez and Jose M. Puerta

5:50PM *Fuzzy Anomaly Detection in Monitoring Sensor Data* **[#339]**. Julien Rabatel, Sandra Bringay and Pascal Poncelet

6:10PM *A Fuzzy Recognition-Primed Decision Model-Based Causal Association Mining Algorithm for Detecting Adverse Drug Reactions in Postmarketing Surveillance* **[#350]**. Yanqing Ji, Hao Ying, Peter Dews, Margo Farber, Ayman Mansour, John Tran, Richard Miller and Michael Massanari

[FDRS] Fuzzy Document Retrieval Systems
[FSM&I] Fuzzy Systems Modelling and Identification
Tuesday, July 20, 4:50PM-6:30PM, Room: 131
Chair: Olivier Pivert

4:50PM *On the Role of t-norms on Hybrid Fuzzy Result Merging for Metasearch* **[#230]**. Arijit De and Elizabeth Diaz

5:10PM *Information Theoretic Fuzzy Modeling for Regression* **[#46]**. Diego Alvarez-Estevez, Jose C. Principe and Vicente Moret-Bonillo

5:30PM *Sufficient Conditions for Monotonically Constrained Functional-type SIRMs Connected Fuzzy Systems* **[#121]**. Jinwook Kim and Jin S. Lee

5:50PM *A Type of Fuzzy Input-Output Model and Its Property* **[#306]**. Xiaojun Ban, Xiaozhi Gao, Xianlin Huang and Kairui Cao

6:10PM *Multiple fuzzy neural networks modeling with sparse data* **[#567]**. Cruz Vega Israel, Wen Yu and Juan Jose Cordova

[S005-2] Evolving Fuzzy Systems II
Tuesday, July 20, 4:50PM-6:30PM, Room: 132
Chair: Nik Kasabov

4:50PM *User Modeling: Through Statistical Analysis and an Evolving Classifier* **[#541]**. Jose Antonio Iglesias, Plamen Angelov, Agapito Ledezma and Araceli Sanchis

5:10PM *Recursive Gath-Geva Clustering as a Basis for Evolving Neuro-Fuzzy Modeling* **[#321]**. Hossein Soleimani-B., Caro Lucas and Babak N. Araabi

5:30PM *Online Self-organizing Adaptive Fuzzy Controller: Application to a Nonlinear Servo System* **[#253]**. Ana Belén Cara, Zsófia Lendek, Robert Babuška, Héctor Pomares and Ignacio Rojas

5:50PM *Evolving Fuzzy Optimally Pruned Extreme Learning Machine: A Comparative Analysis* **[#443]**. Federico Montesino Pouzols and Amaury Lendasse

6:10PM *Evolving Fuzzy Linear Regression Trees* **[#282]**. Andre Lemos, Walmir Caminhas and Fernando Gomide

Wednesday, July 21, 2010

[FDM&DSS-1] Fuzzy Decision Making and DSS I
Wednesday, July 21, 8:00AM-10:00AM, Room: 129
Chair: Janusz Kacprzyk

8:00AM *Value of Information and Solution under VaR Criterion for Fuzzy Random Optimization Problems* **[#87]***.* Shuming Wang and Junzo Watada

8:20AM *Aggregation of group members' opinions based on two principles* **[#142]***.* Tomoe Entani and Masahiro Inuiguchi

8:40AM *Fuzzy- Bayesian Network Approach to Genre-based Recommender Systems* **[#337]***.* Soheila Ashkezari-T. and Mohammad-R. Akbarzadeh-T.

9:00AM *Fuzzy Real Option Value Integrated Fuzzy ANP Method for Location Selection Problems* **[#107]***.* A. Çagri Tolga, Fatih Tuysuz and Cengiz Kahraman

9:20AM *A Fuzzy Inference System Applied to Defect Detection in Flat Steel Production* **[#248]***.* Alice Borselli, Valentina Colla, Marco Vannucci and Marco Veroli

9:40AM *Metaheuristic Search Procedure based on Fuzzy Graph for p-Facility Problems* **[#8]***.* Wesley G. Almeida and Ernesto Araujo

[S024-1] Computing with Words I
Wednesday, July 21, 8:00AM-10:00AM, Room: 130
Chair: Sergio Guadarrama, Jerry Mendel

8:00AM *Social Judgment Advisor: An Application of the Perceptual Computer* **[#42]***.* Dongrui Wu and Jerry Mendel

8:20AM *Enhanced Interval Approach for Encoding Words into Interval Type-2 Fuzzy Sets and Convergence of the Word FOUs* **[#211]***.* Simon Coupland, Jerry Mendel and Dongrui Wu

8:40AM *Syntax Learning For The Description Of Scenes Composed Of Geometric Shapes* **[#553]***.* David P. Pancho and Sergio Guadarrama

9:00AM *Using Soft Constraints To Learn Semantic Models Of Descriptions Of Shapes* **[#555]***.* Sergio Guadarrama and David P. Pancho

9:20AM *Economic Trends Prediction Based on Linguistic Reasoning* **[#395]***.* Shinichiro Ito and Tomohiro Takagi

9:40AM *A Study on Verbalization of Human Behaviors in a Room* **[#479]***.* Ichiro Kobayashi, Mami Noumi and Atsuko Hiyama

[S032-1] Intelligent Agents I
Wednesday, July 21, 8:00AM-10:00AM, Room: 131
Chair: Hani Hagras

8:00AM *Multi-Agent Memetic Computing for Adaptive Learning Experiences* **[#411]***.* Giovanni Acampora, Vincenzo Loia, Autilia Vitiello and Matteo Gaeta

8:20AM *A Type-2 Fuzzy Personal Ontology for Meeting Scheduling System* **[#54]***.* Chang-Shing Lee, Mei-Hui Wang, Min-Hsiang Wu, Chin-Yuan Hsu, Yi-Chen Lin and Shi-Jim Yen

8:40AM *A Fuzzy Based Hierarchical Coordination and Control System for a Robotic Agent Team in the Robot Hockey Competition* **[#29]**. Hani Hagras, Rabie Ramadan, **Mousata** Nawito, Hala Gabr, Mina Zaher and Hussien Fahmy

9:00AM *Agent-based Uncertainty Logic Network* **[#501]**. Boris Kovalerchuk and Germano Resconi

9:20AM *Rational Cognitive Muli-Agent System with Fuzzy Logic for a three Wheeled Mobile Robot* **[#290]**. Arnulfo Alanis, Oscar Castillo and Mario García-Valdez

9:40AM *Localising Agents in Multiple-Occupant Intelligent Environments* **[#390]**. M. Javad Akhlaghinia, Ahmad Lotfi and Caroline Langensiepen

[S068-1] Fuzzy Sets and the Soft Sciences I
Wednesday, July 21, 8:00AM-10:00AM, Room: 132
Chair: Rudolf Seising

8:00AM *An Analysis of Reasoning with Quantifiers within the Aristotelian Syllogistic Framework* **[#318]**. Martin Pereira-Farina, Felix Diaz-Hermida and Alberto Bugarin

8:20AM *"Soft Concepts" for Soft Computing in "Soft Sciences". On 20 years of Soft Computing* **[#597]**. Rudolf Seising

8:40AM *Causality and Imperfect Causality from texts: a frame for causality in social sciences* **[#584]**. Alejandro Sobrino, Jose Angel Olivas and Cristina Puente

9:00AM *On two properties of the conditional in fuzzy logic* **[#102]**. Enric Trillas, Claudi Alsina and Itziar Garcia-Honrado

9:20AM *Fuzzy logic helps to integrate music theory and practice* **[#108]**. Teresa Leon and Vicente Liern

9:40AM *On the Semantics and the Use of Fuzzy Cognitive Maps in Social Sciences* **[#252]**. Joao Paulo Carvalho

[WMP] Poster Session: Hybrids and Fuzzy Systems Applications
Wednesday, July 21, 9:00AM-12:00PM, Room: Foyer 2
Chair: Humberto Bustince

P901 *A Design of Genetically Oriented Linguistic Model with the Aid of Fuzzy Granulation* **[#379]**. Keun-Chang Kwak and Witold Pedrycz

P902 *Development of a water quality Index using a fuzzy logic: a case study for the Sorocaba River* **[#472]**. Sandra Regina Monteiro Masalskiene Roveda, Ana Paula Maia , Bondança, João Guilherme Soares Silva, José Arnaldo Frutuoso Roveda and André Henrique Rosa

P903 *A Fuzzy Classification System for Prediction of the Results of the Basketball Games* **[#486]**. Krzysztof Trawinski

P904 *Using an evolutionary fuzzy regression for affective product design* **[#44]**. K. Y. Chan, T.S. Dillon and C.K. Kwong

P905 *A Fuzzy System for Detection of Incipient Fault in Power Transformers Based on Gas-in-Oil Analysis* **[#52]**. Ronaldo Aquino, Milde Lira, Taciana Filgueiras, Heldemarcio Ferreira, Otoni Nobrega Neto, Agnaldo Silva and Viviane Asfora

P906 *Cellular Manufacturing System Scheduling under Fuzzy Constraints: a Group Technology Perspective* **[#331]**. Bo Xing, Wenjing Gao, Fulufhelo V. Nelwamondo, Kimberly Battle and Tshilidzi Marwala.

P907 *Implementation of a Fuzzy Model for Computation of Margins in Cancer Treatment.* **[#36]**. Bongile Mzenda, Mir Hosseini-Ashrafi, Alex Gegov and David Brown

P908 *Biometric Liveness Checking Using Multimodal Fuzzy Fusion* **[#518]**. Girija Chetty

P909 *Design of a Lane Detection and Departure Warning System Using Functional-Link-Based Neuro-fuzzy Networks* **[#188]**. Cheng-Jian Lin, Jyun-Guo Wang, Shyi-Ming Chen and Chi-Yung Lee

[FUZZ / IT-2] Invited Talk 2: James Bezdek
"Some New Indices for Relational Cluster Validity"
Wednesday, July 21, 11:30AM-12:50PM, Room: 117
Chair: James Keller

[FDM&DSS-2] Fuzzy Decision Making and DSS II
Wednesday, July 21, 2:30PM-3:30PM, Room: 129
Chair: Macarena Espinilla

2:30PM *Specificity for interval-valued fuzzy sets* **[#110]**. Ramón González-del-Campo, Luis Garmendia and Ronald R. Yager

2:50PM *An Uncertainty Analysis of Supplier Selection by Fuzzy Logic* **[#213]**. M. Bahar Baskir and I. Burhan Turksen

3:10PM *A Possibilistic Programming Approach for the Vehicle Routing Problem with Time Windows* **[#294]**. Sezgin Kilic

[S024-2] Computing with Words II
Wednesday, July 21, 2:30PM-3:30PM, Room: 130
Chair: Sergio Guadarrama, Jerry Mendel

2:30PM *Extraction, Analysis and Representation of Imperfect Conditional and Causal sentences by means of a Semi-Automatic Process* **[#591]**. Cristina Puente, Alejandro Sobrino, Jose Angel Olivas and Roberto Merlo

2:50PM *Collecting Fuzzy Perceptions from Non-expert Users* **[#544]**. Jose Barranquero Tolosa and Sergio Guadarrama

3:10PM *Combining Semantic Web Technologies and Computational Theory of Perceptions for Text Generation in Financial Analysis* **[#281]**. Sheila Mendez-Nunez and Gracian Trivino

[S032-2] Intelligent Agents II
Wednesday, July 21, 2:30PM-3:30PM, Room: 131
Chair: Vincenzo Loia

2:30PM *Buyer Agent Decision Process Based on Automatic Fuzzy Rules Generation Methods* **[#427]**. Roi Arapoglou, Kostas Kolomvatsos and Stathes Hadjiefthymiades

2:50PM *An Intelligent Fuzzy Based System for Market Design Agents* **[#117]**. Mohamed Almehdar and Hani Hagras

3:10PM *A Fuzzy Based Verification Agent for the Persim Human Activity Simulator in Ambient Intelligent Environments* **[#157]**. Amr Elfaham, Hani Hagras, Sumi Helal, Shantonu Hossain, Jae Woong Lee and Diane Cook

[S075-1] Nonlinearities in Clustering: Kernel Tricks and Semi-Supervision I
Wednesday, July 21, 2:30PM-3:30PM, Room: 132
Chair: Yasunori Endo

2:30PM *Hard and Fuzzy c-Regression Models for Data with Tolerance in Independent and Dependent Variables* [**#367**]. Yasunori Endo, Kouta Kurihara, Sadaaki Miyamoto and Yukihiro Hamasuna

2:50PM *PCA-guided Fuzzy Cluster Validation with Noise Rejection* [**#49**]. Katsuhiro Honda, Akira Notsu, Tomohiro Matsui and Hidetomo Ichihashi

3:10PM *Semi-Supervised Agglomerative Hierarchical Clustering Algorithms with Pairwise Constraints* [**#96**]. Sadaaki Miyamoto and Akihisa Terami

[FLM-1] Fuzzy Logic in Medicine I
Wednesday, July 21, 2:30PM-3:30PM, Room: 118
Chair: Yutaka Hata

2:30PM *Automated Fuzzy Logic Based Skull Stripping in Neonatal and Infantile MR Images* [**#504**]. Kosuke Yamaguchi, Yuko Fujimoto, Syoji Kobashi, Yuki Wakata, Reiichi Ishikura, Kei Kuramoto, Seturo Imawaki, Shozo Hirota and Yutaka Hata.

2:50PM *Detection of Tumors on Stomach Wall in X-ray Images* [**#525**]. Toshifumi Minemoto, Shinya Odama, Ayumu Saitoh, Teijiro Isokawa, Naotake Kamiura, Haruhiko Nishimura, Shigeki Ono and Nobuyuki Matsui

3:10PM *Automated Determination Method of Tibial Bone Coordinate System for Analysing Bone Tunnel Trans-Position after Anterior Cruciate Ligament Reconstruction from a Knee MDCT Image* [**#456**]. Kouki Nagamune, Daisuke Araki, Seiji Kubo, Ryosuke Kuroda and Masahiro Kurosaka

[WAP] Poster Session: Fuzzy Logic Theory
Wednesday, July 21, 3:00PM-6:00PM, Room: Foyer 2
Chair: Michal Holcapek

P1101 *Transitive Closure of L-fuzzy Relations and Interval-valued Fuzzy Relations* [**#111**]. Ramon Gonzalez del Campo, Luis Garmendia and Bernard De Baets

P1102 *Approximating fuzzy preorders and equivalences. A similarity based approach.* [**#173**]. Dionis Boixader and Jordi Recasens

P1103 *A Logical Analysis of Mamdani-type Fuzzy Inference, I Theoretical Bases* [**#497**]. Simone Bova, Pietro Codara, Daniele Maccari and Vincenzo Marra

P1104 *A Structured Approach to Fuzzy Abduction Based on Contraposition Property of Propositional Logic* [**#608**]. Aruna Chakraborty, Amit Konar and Atulya K. Nagar

P1105 *t -Best Approximation in Intuitionistic Fuzzy Normed Spaces* [**#125**]. Jacob Kavikumar, Azme Khamis and N. S. Manian

P1106 *Applications and Comparisons of Fuzzy Similarity Measures* [**#451**]. Leila Baccour and Adel M. Alimi

P1107 *Design of Networked Control Systems With Partly Unknown Markovian Transition Probabilities* [**#72**]. Guotao Hui, Huaguang Zhang, Yingchun Wang and Meng Dong

P1108 *Lumpability of Absorbing Markov Chains and Replacement Chains on Fuzzy Partitions* [**#334**]. Ioannis Gerontidis and Ioannis Petasakis

[FDM&DSS-3] Fuzzy Decision Making and DSS III
Wednesday, July 21, 3:30PM-4:30PM, Room: 129
Chair: Jose L. Verdegay

3:30PM *A Noise Robust Variant of Context Extraction for Local Fusion* **[#346]**. Gyeongyong Heo, Paul Gader and Hichem Frigui

3:50PM *A Parametric Convex Programming Approach Applied To Portfolio Selection Problem With Fuzzy Costs* **[#420]**. Ricardo C. Silva, Jose L. Verdegay and Akebo Yamakami

4:10PM *A Threshold for Majority in the Context of Aggregating Partial Order Relations* **[#439]**. Michael Rademaker and Bernard De Baets

[S058-1] Fuzzy Ontologies and Fuzzy Markup Language Applications I
Wednesday, July 21, 3:30PM-4:30PM, Room: 130
Chair: Giovanni Acampora

3:30PM *OWL-FC Ontology Web Language for Fuzzy Control* **[#342]**. Vincenzo Loia, Carmen De Maio, Giuseppe Fenza and Sabrina Senatore

3:50PM *Fuzzy Ontologies and Knowledge Mobilisation: Turning Amateurs into Wine Connoisseurs* **[#272]** [#272]. Christer Carlsson, Matteo Brunelli and Jozsef Mezei

4:10PM *Apply Fuzzy Ontology to CMMI-based ASAP Assessment System* **[#250]**. Mei-Hui Wang, Zhi-Rong Yan, Chang-Shing Lee, Pi-Hsia Hung, Yi-Ling Kuo, Hui-Min Wang and Bort-Hung Lin

[S009-2] Fuzzy Systems: Control and Hardware II
Wednesday, July 21, 3:30PM-4:30PM, Room: 131
Chair: Oscar Castillo

3:30PM *Implementing an Interval Type-2 Fuzzy Processor onto a DSC 56F8013* **[#418]**. Leonardo Leottau and Miguel Melgarejo

3:50PM *Evolutionary Optimization of Type-2 Fuzzy Systems Based on the Level of Uncertainty* **[#588]**. Denisse Hidalgo, Patricia Melin and Olivia Mendoza

4:10PM *Supervisory Control based Fuzzy Interval Arithmetic Applied for Discrete Scheduling of Manufacturing Systems* **[#311]**. Karim Tamani, Reda Boukezzoula and Georges Habchi

[S075-2] Nonlinearities in Clustering: Kernel Tricks and Semi-Supervision II
Wednesday, July 21, 3:30PM-4:30PM, Room: 132
Chair: Katsuhiro Honda

3:30PM *Evaluation of Information Loss for Privacy Preserving Data Mining through comparison of Fuzzy Partitions* **[#175]**. Isaac Cano, Susana Ladra and Vicenç Torra

3:50PM *Cluster Validity Measures for Data with Tolerance* **[#386]**. Yukihiro Hamasuna, Yasunori Endo and Sadaaki Miyamoto

4:10PM *Semi-hard c-Means Clustering with Application to Classifier Design* **[#68]**. Hidetomo Ichihashi, Akira Notsu and Katsuhiro Honda

[FLM-2] Fuzzy Logic in Medicine II
Wednesday, July 21, 3:30PM-4:30PM, Room: 123
Chair: Yutaka Hata

3:30PM *Biometric Personal Authentication by One Step Foot Pressure Distribution Change by Fuzzy Artificial Immune System* **[#191]**. Takahiro Takeda, Kazuhiko Taniguchi, Kazunari Asari, Kei Kuramoto, Syoji Kobashi and Yutaka Hata

3:50PM *Soft Computing Approaches to Identify Cellular Quantity of Artificial Culture Bone* **[#242]**. Naomi Yagi, Yoshitetsu Oshiro, Osamu Ishikawa, Keisuke Oe and Yutaka Hata

4:10PM *Development of a Fault Diagnosis System based on Fuzzified Neural Networks* **[#364]**. Daisaku Kimura, Manabu Nii, Yutaka Takahashi and Takayuki Yumoto

[FD/IP] Fuzzy Databases and Information Processing
Wednesday, July 21, 4:50PM-6:30PM, Room: 129
Chair: Maria Rifqi

4:50PM *On a Fuzzy Group-by Clause in SQLf* **[#16]**. Patrick Bosc and Olivier Pivert

5:10PM *A Database Preference Query Model Based on a Fuzzy Outranking Relation* **[#17]**. Patrick Bosc, Olivier Pivert and Gregory Smits

5:30PM *A Possibilistic Logic View of Preference Queries to an Uncertain Database* **[#255]**. Patrick Bosc, Olivier Pivert and Henri Prade

5:50PM *Fuzzy Evidence Accrual Applied to Sustainable Manufacturing* **[#495]**. Kathleen Kramer and Stephen Stubberud

6:10PM *A Fuzzy Set Framework for Ontological Similarity Measures* **[#577]**. Valerie Cross and Xinran Yu

[S058-2] Fuzzy Ontologies and Fuzzy Markup Language Applications II
Wednesday, July 21, 4:50PM-6:30PM, Room: 130
Chair: Giovanni Acampora

4:50PM *Crowdsourcing techniques to create a fuzzy subset of SNOMED CT for semantic tagging of medical documents* **[#241]**. David Parry and Tsung-Chun Tsai

5:10PM *Updating Generalized Association Rules with Evolving Fuzzy Taxonomies* **[#589]**. Wen-Yang Lin, Ming-Cheng Tseng and Ja-Hwung Su

5:30PM *A Fuzzy Ontology Approach to represent User Profiles in E-Learning Environments* **[#556]**. Mateus Ferreira-Satler, Francisco Romero, Victor Menendez, Alfredo Zapata and Manuel Prieto

5:50PM *Hybridizing Fuzzy Control and Timed Automata for Modeling Variable Structure Fuzzy Systems* **[#394]**. Giovanni Acampora, Vincenzo Loia and Autilia Vitiello

[S009-3] Fuzzy Systems: Control and Hardware III
Wednesday, July 21, 4:50PM-6:30PM, Room: 131
Chair: Oscar Castillo

4:50PM *FPGA Implementation of (p)-Monotone Sum of Basic t-norms* **[#521]**. Antonio Prometeo Cortés, Ildar Batyrshin, Imre Rudas, Alexandra Panova and Luis A. Villa Vargas

5:10PM *A Design Environment for Synthesis of Embedded Fuzzy Controllers on FPGAs* **[#545]**. Santiago Sanchez-Solano, Ernesto del Toro, Maria Brox, Iluminada Baturone and Angel Barriga

5:30PM *Fuzzy Control of Parameters to dynamically adapt the PSO and GA Algorithms* **[#559]**. Fevrier Valdez, Patricia Melin and Oscar Castillo

5:50PM *Simple Tuning Algorithm Improvements for Fuzzy Logic Controllers* **[#513]**. Hector Alejandro Ortiz-de-la-Vega, Eduardo Gomez-Ramirez and Julio Cesar Cortes-Rios

6:10PM *A Hardware Architecture Proposal for the Enhanced Karnik- Mendel Algorithm Based on Sequential Arithmetic Operators* **[#384]**. Miguel A. Melgarejo and Linda K. Duran

[S075-3] Nonlinearities in Clustering: Kernel Tricks and Semi-Supervision III
[FIP] Fuzzy Image Processing
Wednesday, July 21, 4:50PM-6:30PM, Room: 132
Chair: Yuchi Kanzawa

4:50PM *On Kernel Fuzzy c-Means for Data with Tolerance using Explicit Mapping for Kernel Data Analysis* **[#73]**. Yuchi Kanzawa, Yasunori Endo and Sadaaki Miyamoto

5:10PM *Fast Fuzzy Vector Quantization* **[#416]**. George Tsekouras, Dimitrios Dartzentas, Ioanna Drakoulaki and Antonios Niros

5:30PM *Detecting Halftone Dots for Offset Print Quality Assessment Using Soft Computing* **[#423]**. Jens Lundstrom and Antanas Verikas

5:50PM *Improvement in the Performance of Camera Based Vehicle Detector for Parking Lot* **[#69]**. Hidetomo Ichihashi, Tatsuya Katada, Makoto Fujiyoshi, Akira Notsu and Katsuhiro Honda

6:10PM *The Behavior of Particles in the Particle Swarm Clustering Algorithm* **[#462]**. Alexandre Szabo, Ana Karina Fontes Prior and Leandro Nunes de Castro

Thursday, July 22, 2010

[FOD] Fuzzy Optimization and Design
Thursday, July 22, 8:00AM-10:00AM, Room: 129
Chair: Jose Principe

8:00AM *The Variable Radius Covering Problem with Fuzzy Travel Times* **[#145]**. Soheil Davari, Mohammad Hossein Fazel Zarandi, Ahmad Hemmati and I. Burhan Turksen

8:20AM *Fuzzy Approach for Vehicle Routing Problems with Fuzzy Travel Time* **[#593]**. Julio Brito, F. Javier Martinez, Jose A. Moreno and Jose L. Verdegay

8:40AM *Decision Making Strategy in The Designing of a Fuzzy Controller for Inverted Pendulum-Cart System* **[#165]**. Sahamoddin Khailaie, Parvin Bahmanyar and Caro Lucas

9:00AM *Heuristic Local Search for Fuzzy Open Shop Scheduling* **[#333]**. Ines Gonzalez-Rodriguez, Juan Jose Palacios, Camino R Vela and Jorge Puente

9:20AM *Possibilistic Regression Analysis of Influential Factors in the Planning and Implementation of Occupational Health and Safety Management Systems* **[#402]**. Azizul Azhar Ramli, Junzo Watada and Witold Pedrycz

9:40AM *Optimization Model for the Design of WDM Networks with Fuzzy Costs* **[#550]**. Belen Melian and Jose Luis Verdegay

[S049-1] Fuzzy Knowledge Management and Discovery I
Thursday, July 22, 8:00AM-10:00AM, Room: 130
Chair: Chang-Shing Lee

8:00AM *Property and Application of Fuzzy Ontology for Dietary Assessment* **[#94]**. Mei-Hui Wang, Chang-Shing Lee, Zhi-Wei Chen, Chi-Fang Lo, Su-E Kuo, Hui-Ching Kuo and Hui-Hua Cheng

8:20AM *Linguistic Summarization Using IF-THEN Rules* **[#48]**. Dongrui Wu, Jerry Mendel and Jhiin Joo

8:40AM *Knowledge Management Approach for Saving Home Energy Consumption* **[#205]**. Shuki Inoue, Jin Dai, Masakazu Shiba, Aoki Shingo and Hiroshi Tsuji

9:00AM *Development of anti-diabetic drugs ontology for guideline-based clinical drugs recommend system using OWL and SWRL* **[#148]**. Rung-Ching Chen, Cho-Tsan Bau and Yun-Hou Huang

9:20AM *Interval-valued fuzzy decision trees* **[#279]**. Youdthachai Lertworaprachaya, Yingjie Yang and Robert John

9:40AM *An enhanced approach to improve enterprise compentency management* **[#341]**. Vincenzo Loia, Carmen De Maio, Giuseppe Fenza, Francesco Orciuoli and Sabrina Senatore

[S124-1] Control of Takagi-Sugeno Fuzzy and Fuzzy-Polynomial Systems I
Thursday, July 22, 8:00AM-10:00AM, Room: 131
Chair: Antonio Sala

8:00AM *LMI Approach to Output Feedback Control for Fuzzy Systems* **[#75]**. Jun Yoneyama

8:20AM *A Less Conservative LMI condition for stability analysis of Continuous-Time Takagi-Sugeno Fuzzy Systems via a New Fuzzy Lyapunov Function* **[#81]**. Dong Hwan Lee, Jin Bae Park, Young Hoon Joo and Hyun Suk Jeong

8:40AM *On non-PDC local observers for TS fuzzy systems* **[#105]**. Zsofia Lendek, Thierry Marie Guerra and Robert Babuska

9:00AM *Stability Analysis and Stabilization of Polynomial Fuzzy-Model-Based Control Systems Using Piecewise Linear Membership Functions* **[#185]**. H.K. Lam, Mohammad Narimani and F.H.F. Leung

9:20AM *H-infinity Decentralized Static Output Feedback Controller Design For Large Scale Takagi-Sugeno Systems* **[#259]**. Kevin Guelton, Noureddine Manamanni and Dalel Jabri

9:40AM *Non-quadratic stabilization of Takagi-Sugeno models: a local point of view* **[#136]**. Miguel Bernal, Thierry Marie Guerra and Abdelhafidh Jaadari

[S066] Advances in Dynamic Clustering
[FPR-1] Fuzzy Pattern Recognition I
Thursday, July 22, 8:00AM-10:00AM, Room: 132
Chair: Abdelhamid Bouchachia, Hakan Duman

8:00AM *Uncertainty Modeling in Dynamic Clustering - A Soft Computing Perspective* **[#590]**. Georg Peters, Richard Weber and Fernando Crespo

8:20AM *Semi-Supervised Incremental Learning* **[#598]**. Abdelhamid Bouchachia, Markus Prossegger and Hakan Duman

8:40AM *Underlying Systems using Dynamic Clustering and Structural Similarity* **[#398]**. Hernando Castañeda M, Eliezer Colina M, Wladimir Rodríguez G and Carlos Parra O

9:00AM *Exploiting Timed Automata-based Fuzzy Controllers and Data Mining to Detect Computer Network Intrusions* **[#533]**. Giovanni Acampora

9:20AM *The Value of Dynamic Clustering of Base Stations for Future Wireless Networks* **[#310]**. Agisilaos Papadogiannis and George Alexandropoulos

9:40AM *Interval Type-2 Fuzzy Classifier Design Using Genetic Algorithms* **[#53]**. Adinovam Pimenta and Heloisa Camargo

[ThMP] Poster Session: Fuzzy Robotics and Computer Vision Applications
Thursday, July 22, 9:00AM-12:00PM, Room: Foyer 2
Chair: Olivier Strauss

P1301 *The Intelligent Interaction Dealer Robot* **[#45]**. Rong-Jyue Wang, Jhe-Yu Lee, Jia-Ming Xu and Hsin-Yu Liu

P1302 *ANFIS Generated Dynamic Path Planning for a Mobile Robot to Track a Randomly Moving Target in a 3-D Space with Obstacle Avoidance* **[#168]**. Peng-Yung Woo and Vamsi Polisetty

P1303 *Hybrid Fuzzy-MutiAgent Planning for Robust Mobile Robot Motion* **[#582]**. Sonia Kefi, Habib M. Kammoun, Ilhem Kallel and Adel M. Alimi

P1304 *Temporal Fuzzy Based Modeling as Applied to the Class of Man-Machine Interaction* **[#335]**. Jamil Abou Saleh and Fakhreddine Karray

P1305 *A Novel Fuzzy based Framework for Detection of Clustered Microcalcification in Mammograms* **[#594]**. Farhang Sahba and Anastasios Venetsanopoulos

P1306 *Fuzzy Logic Applied to Detect Olive Trees in High Resolution Images* **[#614]**. Juan Moreno-Garcia, Luis Jimenez, Luis Rodriguez-Benitez and Cayetano Solana-Cipres

P1307 *Reliable 3D Reconstruction Extending Pixel-Level Certainty Measures* **[#628]**. Miquel Casamitjana, M. Claudia Perez, Joan Aranda, Eduard Montseny and Enric X. Martin

[PL-4] Plenary Talk 4: Enrique Ruspini
"From Clusters to Models and Perceptions: The Evolution of Fuzzy Clustering"
Thursday, July 22, 10:30AM-11:30AM, Room: 117
Chair: Jim Bezdek

[FLWA] Fuzzy Logic Web Applications
Thursday, July 22, 11:30AM-12:50PM, Room: 129
Chair: Marek Reformat

11:30AM *Using Fuzzy Sets to Model Information Provided by Social Tagging* **[#561]**. Ronald R. Yager and Marek Z. Reformat

11:50AM *Possibilistic Reasoning for Trust-based Access Control Enforcement in Social Networks* **[#106]**. Jordi Nin and Vicenc Torra

12:10PM *Fuzzy Clustering and Relevance Ranking of Web Search Results with Differentiating Cluster Label Generation* **[#225]**. Takazumi Matsumoto and Edward Hung

12:30PM *A Multistage Fuzzy Decision Approach for Modelling Adaptive Negotiation Strategies* **[#351]**. Jan Richter, Matthias Klusch and Ryszard Kowalczyk

[S049-2] Fuzzy Knowledge Management and Discovery II
Thursday, July 22, 11:30AM-12:50PM, Room: 130
Chair: Chang-Shing Lee

11:30AM *A Two-Phase Fuzzy Mining Approach* **[#389]**. Chun-Wei Lin, Tzung-Pei Hong and Wen-Hsiang Lu

11:50AM *Using a Fuzzy Agent in Modeling Lead-Acid Battery Operating in Grid Connected Wind Energy Conversion Systems* **[#546]**. Mohamed Ibrahim, Amr Khairy, Hani Hagras and Mina Zaher

12:10PM *Intelligent User Search Behaviour Knowledge Discovery* **[#583]**. Yun Shen and Trevor Martin

12:30PM *A Category-based Information Filtering Approach based on Interval Type 2 Fuzzy Sets* **[#571]**. Francisco P. Romero, Jesus Serrano-Guerrero, Jose A. Olivas and Andres Soto

[S124-2] Control of Takagi-Sugeno Fuzzy and Fuzzy-Polynomial Systems II
Thursday, July 22, 11:30AM-12:50PM, Room: 131
Chair: Thierry M. Guerra

11:30AM *Local Fuzzy Modeling: maximising the basin of attraction* **[#89]**. J.L. Pitarch, C.V. Ariño, F. Bedate and A. Sala

11:50AM *Controller and observer designs for discrete TS models using an efficient Lyapunov function* **[#283]**. Hichem Kerkeni, Thierry Marie Guerra and Jimmy Lauber

12:10PM *A Formal Methodology For The Analysis And Design Of Nonlinear Fuzzy Control Systems* **[#280]**. Jose Manuel Andujar Marquez and Antonio Javier Barragan Piña

12:30PM *Iterative Discrete Forward-Backward Fuzzy Predictive Control* **[#444]**. Sergio Garcia-Nieto, Jose Vicente Salcedo, Miguel Martinez and Gilberto Reynoso-Meza

[FPR-2] Fuzzy Pattern Recognition II
Thursday, July 22, 11:30AM-12:50PM, Room: 132
Chair: Uzay Kaymak

11:30AM *A Genetic Type-2 Fuzzy Logic System for Pattern Recognition in Computer Aided Detection Systems* **[#227]**. Rahil Hosseini, Jamshid Dehmeshki, Sarah Barman, Mahdi Mazinani and Salah Qanadli

11:50AM *Fuzzy Multi-Label Learning Under Veristic Variables* **[#317]**. Zoulficar Younes, Fahed Abdallah and Thierry Denoeux

12:10PM *Providing PRTools with Fuzzy Rule-Based Classifiers* **[#370]**. Marco Cococcioni, Eleonora D'Andrea and Beatrice Lazzerini

12:30PM *Fuzzy Support Vector Machine with a Fuzzy Nearest Neighbor Classifier for Insect Footprint Classification* **[#85]**. Gyeongyong Heo, Reinhard Klette, Young Woon Woo, Kwang-Baek Kim and Nam Ho Kim

[S099] CI for Activity Recognition from Sensed Data
Thursday, July 22, 11:30AM-12:50PM, Room: 123
Chair: James Keller, Derek Anderson

11:30AM *Human Activity Recognition applying Computational Intelligence techniques for fusing information related to WiFi positioning and body posture* **[#176]**. Alberto Alvarez-Alvarez, Jose M. Alonso, Gracian Trivino, Noelia Hernandez, Fernando Herranz, Angel Llamazares and Manuel Ocana

11:50AM *Segmentation and Linguistic Summarization of Voxel Environments using Stereo Vision and Genetic Algorithms* **[#349]**. Derek Anderson, Robert Luke and James Keller

12:10PM *Sit-To-Stand Detection Using Fuzzy Clustering Techniques* **[#506]**. Tanvi Banerjee, James Keller, Marjorie Skubic and Carmen Abbott

12:30PM *A system to supervise behaviors using temporal and sensor information* **[#537]**. Maria Ros, Miguel Delgado and Amparo Vila

[S062-1] Uncertainty and the semantic web I
Thursday, July 22, 2:30PM-3:30PM, Room: 129
Chair: Fernando Bobillo

2:30PM *Labeled RDF* **[#440]**. Mauro Mazzieri and Aldo Franco Dragoni

2:50PM *Querying Fuzzy RDFS Semantic Annotations* **[#467]**. Afef Bahri, Rafik Bouaziz and Faïez Gargouri

3:10PM *On Fuzzy Semantic Web Services* **[#163]**. Fernando Bobillo, Ehsan Sharifi, Mohamad M. Ebadzadeh and Reza A. Moghadam

[S032-3] Intelligent Agents III
Thursday, July 22, 2:30PM-3:30PM, Room: 130
Chair: Vincenzo Loia

2:30PM *Active Sets, Fuzzy Sets and Inconsistency* **[#325]**. Germano Resconi and Christopher Hinde

2:50PM *A Bayesian Game based Adaptive Fuzzy Controller for Multiagent POMDPs* **[#90]**. Rajneesh Sharma and Matthijs T. J. Spaan

3:10PM *Fuzzy Network of Reasoning by SVD and Morphotronic Network* **[#257]**. Germano Resconi and Zenon Chaczko

[S129-1] Adaptive Intelligent Control and Its Applications I
Thursday, July 22, 2:30PM-3:30PM, Room: 131
Chair: Shun-Feng Su

2:30PM *A Fuzzy ART2 Model for Finding Association Rules in Medical Data* **[#229]**. Yo-Ping Huang, Vu Thi Thanh Hoa, Jung-Shian Jau and Frode Eika Sandnes

2:50PM *Incremental Regularization to Compensate Biased Teachers in Incremental Learning* **[#328]**. Nils Rosemann and Werner Brockmann

3:10PM *On Learning Analysis of Neural Fuzzy Systems* **[#393]**. Jen-Wei Yeh, Shun-Feng Su, Jin-Tsong Jeng and Bor-Sen Chen

[S022-1] Interpretable Fuzzy Systems: Theory and Applications I
Thursday, July 22, 2:30PM-3:30PM, Room: 132
Chair: Jose Maria Alonso and Luis Magdalena

2:30PM *Combining user's preferences and quality criteria into a new index for guiding the design of fuzzy systems with a good interpretability-accuracy trade-off* **[#226]**. Jose M. Alonso and Luis Magdalena

2:50PM *Data-driven Design of Fuzzy Classification Rules with Semantic Cointension* **[#233]**. Raffaele Cannone, Ciro Castiello, Corrado Mencar and Anna Maria Fanelli

3:10PM *Interpretable Fuzzy Systems: Analysis of T-norm interpretability* **[#502]**. Boris Kovalerchuk

[ThAP] Poster Session: Fuzzy Pattern Recognition and Clustering
Thursday, July 22, 3:00PM-6:00PM, Room: Foyer 2
Chair: Thomas Runkler

P1501 *Maximum Power Control of Wind Energy Conversation Systems via a T-S Fuzzy Model-based Approach* **[#218]**. Chian-Song Chiu, Teng-Shung Chiang and Ya-Ting Lee

P1502 *Output Tracking Control for Discrete Time-Varying Delay Systems via Virtual Reference Model Based Approach* **[#219]**. Teng-Shung Chiang and Chian-Song Chiu

P1503 *Bispectrum Entropy Feature Extraction and its Application for fault diagnosis of Gearbox* **[#330]**. Huang Jinying, B. Pan Hongxia and C. Bi Shihua

P1504 *Fuzzy Feature Weighting Techniques for Vector Quantisation* **[#405]**. Dat Tran, Wanli Ma, Dharmendra Sharma and Phuoc Nguyen

P1505 *A Fuzzy Complementary Criterion for Structure Learning of a Neuro-Fuzzy Classifier* **[#429]**. Nikolaos Mitrakis, Serafeim Moustakidis and John Theocharis

P1506 *On Convergence properties of the Singlepass and Online Fuzzy C-Means Algorithm* **[#20]**. Lawrence Hall and Dmitry Goldgof

P1507 *A Similarity-Based Clustering Algorithm for Fuzzy Data* **[#84]**. Wen-Liang Hung and Miin-Shen Yang

P1508 *An Extension of Possibilistic Fuzzy C-Means with Regularization* **[#64]**. Younghwan Namkoong, Gyeongyong Heo and Young Woon Woo

P1509 *An Extension of Global Fuzzy C-means Using Kernel Methods* **[#345]**. Gyeongyong Heo and Paul Gader

P1510 *A New Approach for Semi-Supervised Clustering Based on Fuzzy C-Means* **[#358]**. Valmir Macario and Francisco de A. T. De Carvalho

[S062-2] Uncertainty and the semantic web II
Thursday, July 22, 3:30PM-4:30PM, Room: 129
Chair: Umberto Straccia

3:30PM *From Classical Descrition Logic to n-graded Fuzzy Description Logic* **[#460]**. Marco Cerami, Angel Garcia-Cerdanya and Francesc Esteva

3:50PM *Formulating Description Logic Learning as an Inductive Logic Programming Task* **[#424]**. Stasinos Konstantopoulos and Angelos Charalambidis

4:10PM *Representing Fuzzy Ontologies in OWL 2* **[#109]**. Fernando Bobillo and Umberto Straccia

[S073-1] CI in Machine Learning I
Thursday, July 22, 3:30PM-4:30PM, Room: 130
Chair: Plamen Angelov

3:30PM *Quality of Measures for Attribute Selection in Fuzzy Decision Trees* **[#612]**. Christophe Marsala and Bernadette Bouchon-Meunier

3:50PM *Pattern Trees for Regression and Fuzzy Systems Modeling* **[#459]**. Robin Senge and Eyke Hüllermeier

4:10PM *Learning gradual rules to model convex polygon-shaped classes* **[#520]**. Lavinia Darlea, Sylvie Galichet, Lionel Valet, Gabriel Vasile and Emmanuel Trouvé

[S129-2] Adaptive Intelligent Control and Its Applications II
Thursday, July 22, 3:30PM-4:30PM, Room: 131
Chair: Chih-Min Lin

3:30PM *A Fourier Series-based Adaptive Sliding-Mode Controller for Nonlinear Pneumatic Servo Systems* **[#60]**. Lian-Wang Lee and I-Hsum Li

3:50PM *Nonsingular Terminal Sliding Control Using Fuzzy Wavelet Networks for Mecanum Wheeled Omni-directional Vehicles* **[#195]**. Ching-Chih Tsai and Hsiao-Lang Wu

4:10PM *A Hybrid Fuzzy Decentralized Sliding Mode Under-actuated Control for Autonomous Dynamic Balance of a Running Electrical Bicycle Including Frictional Torque and Motor Dynamics and in the Presence of Huge Uncertainty* **[#55]**. Chih-Lyang Hwang, Hsiu-Ming Wu and Ching-Long Shih

[S022-2] Interpretable Fuzzy Systems: Theory and Applications II
Thursday, July 22, 3:30PM-4:30PM, Room: 132
Chair: Corrado Mencar, Ciro Castiello

3:30PM *Interpretability Improvement of Fuzzy Systems: Reducing the Number of Unique Singletons in Zeroth order Takagi-Sugeno Systems* **[#51]**. Andri Riid and Ennu Rüstern

3:50PM *Exploiting a Three-Objective Evolutionary Algorithm for Generating Mamdani Fuzzy Rule-Based Systems* **[#287]**. Michela Antonelli, Pietro Ducange, Beatrice Lazzerini and Francesco Marcelloni

4:10PM *Interpretable fuzzy inference systems for cooperation of expert knowledge and data in agricultural applications using FisPro* **[#114]***.* Serge Guillaume and Brigitte Charnomordic

[FLM-3] Fuzzy Logic in Medicine III
Thursday, July 22, 3:30PM-4:30PM, Room: 118
Chair: Yutaka Hata

3:30PM *A priori Knowledge Based Particle Filter for Estimating 3-D Pose position of Implanted Knee* **[#505]***.* Yusuke Nakajima, Syoji Kobashi, Yohei Tsumori, Nao Shibanuma, Fumiaki Imamura, Kei Kuramoto, Seturo Imawaki, Shinichi Yoshiya and Yutaka Hata

3:50PM *Multi Sensor Approach to Detection of Heartbeat and Respiratory Rate Aided by Fuzzy Logic* **[#243]***.* Kiyotaka Ho, Kenta Yamamoto, Naoki Tsuchiya, Hiroshi Nakajima, Kei Kuramoto, Syoji Kobashi and Yutaka Hata

[S020-1] Aggregation Operators: Theory and Practice I
Thursday, July 22, 4:50PM-6:30PM, Room: 129
Chair: Javier Montero

4:50PM *Ordered Fuzzy Weighted Averages and Ordered Linguistic Weighted Averages* **[#41]***.* Dongrui Wu and Jerry Mendel

5:10PM *The Unbalanced Linguistic Ordered Weighted Averaging Operator* **[#182]***.* David Isern, Lucas Marin, Aida Valls and Antonio Moreno

5:30PM *S-implications in the set of discrete fuzzy numbers* **[#196]***.* Jaume Casasnovas and J.Vicente Riera

5:50PM *Degree of Monotonicity in Aggregation Process* **[#455]***.* Olga Grigorenko

6:10PM *Logic Aggregation of Suitability Maps* **[#496]***.* Jozo Dujmovic and David Scheer

[S073-2] CI in Machine Learning II
Thursday, July 22, 4:50PM-6:30PM, Room: 130
Chair: Eyke Huellermeier, Daniel Sanchez

4:50PM *An Extraction Method for the Characterization of the Fuzzy Rule Based Classification Systems' Behavior using Data Complexity Measures: A case of study with FH-GBML* **[#547]***.* Julian Luengo and Francisco Herrera

5:10PM *A Comprehensive Comparison of Time Series Described by Linguistic Summaries and its Application to the Comparison of Performance of a Mutual Fund and its Benchmark* **[#580]***.* Janusz Kacprzyk and Anna Wilbik

5:30PM *Achieving Memetic Adaptability by means of Fuzzy Decision Tree*s **[#368]***.* Giovanni Acampora, Jose Manuel Cadenas, Vincenzo Loia and Enrique Muñoz

5:50PM *Robustness of Neural Ensembles Against Targeted and Random Adversarial Learning* **[#493]***.* Shir Li Wang, Kamran Shafi, Chris Lokan and Hussein A. Abbass

6:10PM *H_∞ Filter Design for a class of networked control systems via T-S fuzzy model approach* **[#192]***.* Zehui Mao, Bin Jiang and Yufei Xu

[S129-3] Adaptive Intelligent Control and Its Applications III
Thursday, July 22, 4:50PM-6:30PM, Room: 131
Chair: Ching-Chih Tsai

4:50PM *Robust Static Output Feedback Fuzzy Control Design for Nonlinear Systems with Persistent Bounded Disturbances: A Singular Value Decomposition Approach* **[#15]**. Chung-Shi Tseng and Hwa-Lu Jhi

5:10PM *An Observer-Based Neural Adaptive Control for Rolling Cart Systems* **[#123]**. Wen-Shyong Yu

5:30PM *Observer-Based Adaptive Fuzzy Output Feedback Control for Biped Robotic Systems* **[#124]**. Wen-Shyong Yu

5:50PM *Synchronization Control of Chaotic System using Adaptive Recurrent Wavelet CMAC* **[#172]**. Chih-Min Lin, Ming-Hung Lin and Hsin-Yi Li

6:10PM *Robust Static Output Feedback Fuzzy Control Design for a Class of Nonlinear Stochastic Systems* **[#206]**. Chung-Shi Tseng and Bor-Sen Chen

[S123-5] Evolutionary Fuzzy Systems V
[S025] Brain and Learning
Thursday, July 22, 4:50PM-6:30PM, Room: 132
Chair: Isao Hayashi

4:50PM *Immune Engineering for Elgasir Algorithm Optimization* **[#474]**. Fathi Gasir, Zuhair Bandar, Keeley Crockett and Alan Crispin

5:10PM *Trigger Model for Guiding Arm Movement in Circle Drawing* **[#524]**. Norifumi Watanabe and Takashi Omori

5:30PM *Directional Intention Identification for Running Control of an Omni-directional Walker* **[#190]**. Yinlai Jiang and Shuoyu Wang

5:50PM *Acquisition of Logicality in Living Neuronal Networks and its Operation to Fuzzy Bio-Robot System* **[#530]**. Isao Hayashi, Megumi Kiyotoki, Ai Kiyohara, Minori Tokuda and Suguru N. Kudoh

6:10PM *Instruction for Reinforcement Learning Agent Based on Sub-Rewards and Forgetting* **[#564]**. Toshihiko Watanabe and Toru Sawa

Friday, July 23, 2010

[S118] Multimedia Information Retrieval
[S068-2] Fuzzy Sets and the Soft Sciences II
Friday, July 23, 8:00AM-10:00AM, Room: 129
Chair: Jesus Chamorro-Martinez, Rudolf Seising

8:00AM *A Semiotic Approach to Data in Medical Decision Making* **[#448]**. Mila Kwiatkowska and Linda McMillan

8:20AM *A Fuzzy Approach for Retrieving Images in Databases using Dominant Color and Texture Descriptors* **[#605]**. Jesus Chamorro-Martinez, Pedro Manuel Martinez-Jimenez and Jose Manuel Soto-Hidalgo

8:40AM *A Text-Based Fully Automated Architecture for the Semantic Annotation and Retrieval of Turkish News Videos* **[#119]**. Dilek Küçük and Adnan Yazici

9:00AM *A Framework for Fuzzy Video Content Extraction, Storage and Retrieval* **[#210]**. Murat Koyuncu, Turgay Yilmaz, Yakup Yildirim and Adnan Yazici

9:20AM *Intelligent Content Retrieval using a Visual Vocabulary and Geometric Constraints* **[#267]**. Evaggelos Spyrou, Yannis Kalantidis, Giorgos Tolias, Phivos Mylonas and Stefanos Kollias

9:40AM *Influence of music representation on compression-based clustering* **[#7803]**. Antonio Gonzalez-Pardo, Ana Granados, David Camacho and Francisco de Borja Rodriguez

[FDM&DSS-4] Fuzzy Decision Making and DSS IV
Friday, July 23, 8:00AM-10:00AM, Room: 130
Chair: Senen Barro

8:00AM *Preference and Causal Fuzzy Models for Manager's Decision Aiding in Industrial Performance Improvement* **[#446]**. Jacky Montmain, Vincent Cliville, Lamia Berrah and Gilles Mauris

8:20AM *Fuzzy Generalized Aggregation Operators in a Unified Model between the Probability, the Weighted Average and the OWA Operator* **[#565]**. Jose M. Merigo

8:40AM *Defuzzification and Implication within Ordered Fuzzy Numbers* **[#480]**. Witold Kosiński, and Dorota Wilczyńska-Sztyma

9:00AM *Airplane Level Changes Using Fuzzy Control* **[#452]**. Agnaldo Lovato and Jose Carlos Oliveira

9:20AM *A Heterogeneous Evaluation Model for Assessing Sustainable Energy: A Belgian Case Study* **[#551]**. Macarena Espinilla, Da Ruan, Jun Liu and Luis Martinez

[S129-4] Adaptive Intelligent Control and Its Applications IV- Fuzzy systems architectures and HW
Friday, July 23, 8:00AM-10:00AM, Room: 131
Chair: Shun-Feng Su

8:00AM *Evaluation of Fuzzy-based Maximum Power Tracking in Wind Energy Conversion Systems (WECS)* **[#76]**. Maher Azzouz, Abdel-latif Elshafei and Hasan Emara

8:20AM *Design of Polar-Space Kinematic Controller Based on Ant Colony Optimization Computing Method for Omnidirectional Mobile Robots* **[#149]**. Hsu-Chih Huang and Ching-Chih Tsai

8:40AM *Intelligent Adaptive Motion Control Using Fuzzy Basis Function Networks for Self-Balancing Two-Wheeled Transporters* **[#234]**. Ching-Chih Tsai, Shui-Chun Lin and Bor-Chih Lin

[S022-3] Interpretable Fuzzy Systems: Theory and Applications III
[S028] Fuzzy Interpolation
Friday, July 23, 8:00AM-10:00AM, Room: 132
Chair: Qiang Shen, Lazslo Koczy

8:00AM *An Evolving Mamdani-Takagi-Sugeno based Neural-Fuzzy Inference System with Improved Interpretability-Accuracy* **[#498]**. Weng Luen Ho, Whye Loon Tung and Chai Quek

8:20AM *Adaptive Fuzzy Interpolation and Extrapolation with Multiple-antecedent Rules* **[#137]**. Longzhi Yang and Qiang Shen

8:40AM *A New Method for Weighted Fuzzy Interpolative Reasoning Based on Weights-Learning Techniques* **[#129]**. Shyi-Ming Chen and Yu-Chuan Chang

9:00AM *A New Method for Fuzzy Rule Interpolation Based on the Ratio of Fuzziness of Interval Type-2 Fuzzy Sets* **[#130]**. Shyi-Ming Chen and Yu-Chuan Chang

9:20AM *Comparative Analysis of Interpolative and Non-interpolative Fuzzy Rule Based Machine Learning Systems Applying Various Numerical Optimization Methods* **[#161]**. Krisztian Balazs, Janos Botzheim and Laszlo T. Koczy

[FUZZ / IT-3] Invited Talk 3: Nozha Boujemaa
"Competitive Clustering for Multimedia Mining and Retrieval"
Friday, July 23, 11:30AM-12:50PM, Room: 117
Speaker: Bernadette Bouchon-Meunier

[S020-2] Aggregation Operators: Theory and Practice II
Friday, July 23, 2:30PM-3:30PM, Room: 129
Chair: Humberto Bustince

2:30PM *Fusion operators for multi-modal biometric authentication based on physiological signals* **[#463]**. Aureli Soria-Frisch, Alejandro Riera and Stephen Dunne

2:50PM *A computational definition of aggregation rules* **[#602]**. J. Tinguaro Rodriguez, Victoria Lopez, Daniel Gomez, Begona Vitoriano and Javier Montero

3:10PM *Interval-valued Contractive Fuzzy Negations* **[#100]**. Benjamin Bedregal, Humberto Bustince, Javier Fernandez, Glad Deschrijver and Radko Mesiar

[FDM&F-2] Fuzzy Data Mining and Forecasting II
Friday, July 23, 2:30PM-3:30PM, Room: 130
Chair: Anne Laurent

2:30PM *A New Approach to Dealing With Missing Values in Data-driven Fuzzy Modeling* **[#576]**. Rui Jorge Almeida, Uzay Kaymak and Joao M.C. Sousa

2:50PM *Strengthening Fuzzy Gradual Rules Through "all the more" Clauses* **[#586]**. Bernadette Bouchon-Meunier, Anne Laurent, Marie-Jeanne Lesot and Maria Rifqi

3:10PM *Towards Multi-Core Parallel Fuzzy Tree Mining* **[#592]**. Nicolas Sicard, Anne Laurent, Federico Del Razo Lopez and Perfecto Malaquias Quintero Flores

[FSMA] Fuzzy Sets in Medical Applications
Friday, July 23, 2:30PM-3:30PM, Room: 131
Chair: Sandra Sandri

2:30PM *Fuzzy Filtering Systems for Performing Environment Improvement of Computational DNA Motif Discovery* **[#22]**. Dianhui Wang and Sarwar Tapan

2:50PM *Variance Analysis and Biomedical Pattern Classification* **[#183]**. Nick Pizzi, Aleksander Demko and Witold Pedrycz

3:10PM *A Comprehensive Approach towards Extra-Corporal Circulation Control using Fuzzy Logic* **[#359]**. Benedikt Baumgartner, Alejandro Mendoza, Ulrich Schreiber, Stefan Eichhorn, Markus Krane, Robert Bauernschmitt and Alois Knoll

[S061-1] Fuzzy robotics and multi-robotics I
Friday, July 23, 2:30PM-3:30PM, Room: 132
Chair: Naoyuki Kubota and Honghai Liu

2:30PM *Learning and Adaptation of Robot Skills using Fuzzy Models* **[#57]**. Rainer Palm and Boyko Iliev

2:50PM *Applying Fuzzy EM Algorithm with a Fast Convergence to GMMs* **[#34]**. Zhaojie Ju and Honghai Liu

3:10PM *Human Actions Recognition Using Fuzzy PCA and Discriminative Hidden Model* **[#376]**. Xiaofei Ji, Honghai Liu and Yibo Li

[FMMI] Fuzzy Man-Machine Interfaces
[FEC] Fuzzy Emotional Computing
Friday, July 23, 3:30PM-4:30PM, Room: 129
Chair: Marie-Jeanne Lesot

3:30PM *Simulating Emotional Personality in Human Computer Interfaces* **[#303]**. Albert van der Heide and Gracian Trivino

3:50PM *Expressions of graduality for sentiments analysis - A survey* **[#603]**. Fabon Dzogang, Marie-Jeanne Lesot, Maria Rifqi and Bernadette Bouchon-Meunier

[FPM] Fuzzy Preference Modeling
Friday, July 23, 3:30PM-4:30PM, Room: 130
Chair: Javier Montero

3:30PM *Information Measures Over Intuitionistic Four Valued Fuzzy Preferences* **[#162]**. Camilo Franco, J. Tinguaro Rodríguez and Javier Montero

3:50PM *Min-transitivity of graded comparisons for random variables* **[#606]**. Susana Montes, Davide Martinetti, Ignacio Montes and Susana Diaz

[S137-1] Hierarchical Fuzzy Systems
Friday, July 23, 3:30PM-4:30PM, Room: 131
Chair: B.S.U. Mendis, Tom Gedeon

3:30PM *Improvements in Sugeno-Yasukawa modelling algorithm* **[#361]**. Amir Hadad, B.S.U. Mendis and Tom Gedeon

3:50PM *Xfhl: A Tool for the Induction of Hierarchical Fuzzy Systems* **[#600]**. Sergio Cala and Francisco J. Moreno-Velo

4:10PM *Hierarchical Fuzzy System Modelling by Genetic and Bacterial Programming Approaches* **[#599]**. Krisztian Balazs, Janos Botzheim and Laszlo T. Koczy

[S061-2] Fuzzy robotics and multi-robotics II
Friday, July 23, 3:30PM-4:30PM, Room: 132
Chair: Naoyuki Kubota, Honghai Liu

3:30PM *Localization of Human Based on Fuzzy Spiking Neural Network in Informationally Structured Space* **[#527]**. Naoyuki Kubota, Dalai Tang, Takenori Obo and Shiho Wakisaka

3:50PM *Behavioral Development of Ball Kicking Motion of a Two-wheeled Inverted Pendulum Mobile Robot* **[#354]**. Yasutake Takahashi, Hiroaki Nonoshita, Takayuki Nakamura and Yoichiro Maeda

4:10PM *Extending Evolutionary Fuzzy Quantile Inference to Classify Partially Occluded Human Motions* **[#93]**. Mehdi Khoury and Honghai Liu

[S011] Aggregation Operators in Image Processing
Friday, July 23, 4:50PM-6:30PM, Room: 130
Chair: Gleb Beliakov, Humberto Bustince

4:50PM *Non-negative matrix factorization and decomposition of a fuzzy relation* **[#120]**. Barnabas Bede, Hajime Nobuhara, Imre J Rudas and Takanari Tanabata

5:10PM *Discrete t-norms in a Fuzzy Mathematical Morphology: Algebraic Properties and Experimental Results* **[#231]**. Manuel Gonzalez-Hidalgo, Sebastia Massanet and Joan Torrens

5:30PM *On the Use of Quasi-arithmetic Means for the Generation of Edge Detection Blending Functions* **[#316]**. Carlos Lopez-Molina, Javier Fernandez, Aranzazu Jurio, Mikel Galar, Miguel Pagola and B. De Baets

5:50PM *Real-Time Color Tone Detection on VideoBased on the Fuzzy Integral* **[#465]**. Anton Albajes-Eizagirre, Aureli Soria-Frisch and Vanel Lazcano

6:10PM *Image Reduction With Local Reduction Operators* **[#532]**. Daniel Paternain, Humberto Bustince, Javier Fernandez, Gleb Beliakov and Radko Mesiar

[S137-2] Applications of Fuzzy Signatures
Friday, July 23, 4:50PM-6:30PM, Room: 131
Chair: B.S.U. Mendis, Tom Gedeon

4:50PM *Fuzzy Word Similarity: A Semantic Approach Using WordNet* **[#557]**. Sukanya Manna and B.S.U. Mendis

5:10PM *Exploring the Use of Fuzzy Signature for Text Mining* **[#522]**. Kok Wai Wong, Todsanai Chumwatana and Domonkos Tikk

5:30PM *Semantic Hierarchical Document Signature For Determining Sentence Similarity* **[#617]**. Sukanya Manna and Tom Gedeon

5:50PM *Polymorphic Fuzzy Signatures* **[#629]**. B.S.U. Mendis and T. D. Gedeon

6:10PM *Decision Making in Multi-Robot Cooperation by Fuzzy Signature Sets* **[#492]**. Aron Ballagi and Laszlo T. Koczy

[S061-3] Fuzzy robotics and multi-robotics III
Friday, July 23, 4:50PM-6:30PM, Room: 132
Chair: Naoyuki Kubota, Honghai Liu

4:50PM *A Two-stage Pattern Matching Method for Speaker Recognition of Partner Robots* **[#202]**. Jiangtao Cao, Naoyuki Kubota and Honghai Liu

5:10PM *Fuzzy Walking and Turning Tap Movement for Humanoid Soccer Robot EFuRIO* **[#409]**. Indra Adji Sulistijono, One Setiaji, Inzar Salfikar and Naoyuki Kubota