2016 Annual Conference of the North American Fuzzy Information Processing Society (NAFIPS 2016)

El Paso, Texas, USA
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NAFIPS 2016 - Sessions

G — General

G-1
Acceptable product pricing problem using $L$-localized solutions of max-plus interval linear equations
Worrawate Leela-apiradee and Phantipa Thipwiwatpotjana

G-2
Extended Kalman Filter Combined with Fuzzy Rules for Localization Using Wireless Transceivers
Marbin Pazos-Revilla, Terry Guo, and Motoya Machida

G-3
Heavy moving averages in exchange rate forecasting
Ernesto León Castro, Ezequiel Avilés Ochoa, José Maria Merigo Lindahl, Anna Maria Gil Lafuente

G-4
Prioritized induced probabilistic OWA for dispute resolution methods
Luis Alessandri Perez Arellano, Ernesto León Castro, Ezequiel Avilés Ochoa, and José Maria Merigo Lindahl

G-5
Relation-Valued Attributes in Rank-Aware Databases and Related Concepts
Ondrej Vaverka

G-6
E. Allison Newcomb and Robert Hammell

G-7
Transforming Fuzzy Graphs into Linguistic Variables
Marc Osswald, Marcel Wehrle, Edy Portmann, and Alexander Denzler

G-8
A study on the application of regression trees and Adaptive Neuro-Fuzzy Inference System in glass manufacturing process for packaging
Herbert R do N Costa and Alessandro La Neve

G-9
A Bibliometric Analysis of Fuzzy Decision Making Research
Fabio Blanco-Mesa, José M. Merigó Lindahl, and Anna M. Gil-Lafuente

G-10
Bonferroni distances with OWA operators
Fabio Blanco-Mesa and José M. Merigó Lindahl

G-11
The Role of Conceptualization and Operationalization in the Use of Secondary Data
Caring About Uncertainty
Thomas Whalen

Properties on Intuitionistic Fuzzy Sets of Third Type
R. Srinivasan and Syed Siddiqua Begum

Handling Query Answering in Crowdsourcing Systems: A Belief Function-Based Approach
Dalila Koulougli, Allel Hadjali, and Idir Rassoul

The Image Reduction Process Based on Generalized Mixture Functions
Antonio Diego S. Farias, Valdigleis S. Costa, Regivan H. N. Santiago, and Benjamin Bedregal

A Residuated Function in a Class of Mealy type \( L \)-Valued Finite Automaton
Antonio Diego S. Farias, Valdigleis S. Costa, Regivan H. N. Santiago, and Benjamin Bedregal

Applications and Comparison of Model-Order Reduction Methods based on Wavelets and POD
Horacio Flórez and Miguel Argaéz

Type-2 fuzzy logic dynamic parameter adaptation in a new fuzzy differential evolution method
Patricia Ochoa, Oscar Castillo, and José Soria

Performance Evaluation of Evolving Classifier Algorithms in High Dimensional Spaces
Ranyeri Rocha and Fernando Gomide

Modeling of an Air Conditioning System through techniques of soft-computing
Herbert R. do N. Costa and Alessandro La Neve

Resource Consumption Prediction Using Neuro-Fuzzy Modeling
Roberto Camacho Barranco and Patricia J. Teller

A model reduction for highly non-linear problems using wavelets and the Gauss-Newton method
Miguel Argaéz, Horacio Flórez, and Osvaldo Méndez

Fuzzy Logic for dynamic adaptation in the Imperialist Competitive Algorithm
Emer Bernal, Oscar Castillo, and Jose Soria
Constructing a Measure of Information Content for an Ontological Concept
Valerie V. Cross

Solving Games
Mark J. Wierman

On Takagi Sugeno Approximations of Mamdani Fuzzy Systems
Salem B. Bacha and Barnabas Bede

Similarity-based Method for Reduction of Fuzzy Rules
Arturo Garcia-Garcia, Marek Z. Reformat, and Andres Mendez-Vazquez

T1 — Special Session: Computing with Words and Beyond

T1-1
AI Inferences utilizing Occam Abduction
James A. Crowder

T1-2
Automatic Discovery of Degrees of Fuzzy Set Membership in Ontologies
Christian F. Hempelmann, Max Petrenko, and Gavin Matthews

T1-3
Conceptual Defaults in Fuzzy Ontology
Julia M. Taylor and Victor Raskin

T1-4
From Computing with Words (CW) to Reasoning with Fuzzy Concepts (RFC)
Yingxu Wang

T2 — Special Session: Fuzzy Logic Applications in Construction Engineering and Management

T2-1
Fuzzy Weighted Average Approach to Ranking Projects in Contractor Initial Bidding
Hanouf M. Alhumaidi

T2-2
Computational Model for Measuring Project Complexity in Construction

T2-3
Overview of Fuzzy Simulation Techniques in Construction Engineering and Management
Mohammad Raoufi and Nima Gerami Seresht
T2-4

A Combined Fuzzy Aggregation and Consensus Process for Multi-Criteria Group Decision Making Problems
Nasir Bedewi Siraj, Moataz Omar, and Aminah Robinson Fayek

T2-5

Fuzzy Cognitive Map to Model Project Management Problems
Denise M. Case and Chrysostomos D. Stylios

T3 — Special Session: Inter-Relation between Interval and Fuzzy Techniques

T3-1

Why $l_p$-methods in Signal and Image Processing: A Fuzzy-Based Explanations
Fernando Cervantes, Bryan Usevitch, and Vladik Kreinovich

T3-2

Join and Meet Operations for Interval-Valued Complex Fuzzy Logic
Sarah Greenfield, Francisco Chiclana, and Scott Dick

T3-3

On $\alpha$-representation of Type-2 Fuzzy sets
Juan Carlos Figueroa-Garcia

T3-4

Comparison of Strategies for Solving Global Optimization Problems Using Speculation and Interval Computations
Angel F. Garcia Contreras and Martine Ceberio

T3-5

Towards the Most Robust Way of Assigning Numerical Degrees to Ordered Labels, With Possible Applications to Dark Matter and Dark Energy
Olga Kosheleva, Vladik Kreinovich, Martha Osegueda Escobar, and Kimberly Kato

T3-6

What If We Use Different “And”-Operations in the Same Expert System
Mahdokht Afravi and Vladik Kreinovich

T3-7

Which Point From an Interval Should We Choose?
Andrzej Pownuk and Vladik Kreinovich

T3-8

How Resilient Modulus of a Pavement Depends on Moisture Level: Towards a Theoretical Justification of a Practically Important Empirical Formula?
Pedro Barragan Olague, Olga Kosheleva, and Vladik Kreinovich

T3-9

Using Interval Constraint Solving Techniques to Better Understand and Predict Future Behaviors of Dynamic Problems
Leobardo Valera and Martine Ceberio
T4 — Special Session: Computational Intelligence in Biomedical Applications

T4-1
Medical Diagnosis from Dental X-Ray Images: A Novel Approach Using Clustering Combined with Fuzzy Rule-based Systems
Tran Manh Tuan, Nguyen Hai Minh, Nguyen Van Tao, Tran Thi Ngan, and To Huu Nguyen

T4-2
A Fuzzy Rule-based Classification System using Hedge Algebraic Type-2 Fuzzy Sets
Phan Anh Phong, Tran Dinh Khang, and Dinh Khac Dong

T4-3
FuzzRESS: A Fuzzy Rule-based Expert System Shell combining Positive and Negative Knowledge for Consultation of Vietnamese Traditional Medicine
Nguyen Hoang Phuong

T4-4
General type-2 fuzzy edge detectors applied to face recognition systems
Claudia I. Gonzalez, Juan R. Castro, Olivia Mendoza, Patricia Melin, and Oscar Castillo

T5 — Fuzzy Pattern Recognition with High Uncertainty

T5-1
Double Coverage Ambulance Location Modeling using Fuzzy Traveling Time
B. Lahijanian, M.H. Fazel Zarandi, and F. Vasheghani Farahani

T5-2
Proposing a Model for Operating Room Scheduling Based on Fuzzy Surgical Duration
B. Lahijanian, M.H. Fazel Zarandi, and F. Vasheghani Farahani

T5-3
Comparison between Choquet and Sugeno Integrals as aggregation operators for pattern recognition
Gabriela E. Martinez, Olivia Mendoza, Juan R. Castro, A. Rodriguez-Diaz, Patricia Melin, and Oscar Castillo

T5-4
A Hybrid Fuzzy Clustering Approach for Fertile and Unfertile Analysis
Shima Soltanzadeh, Mohammad Hosein Fazel Zarandi, and Mojtaba Barzegar Astanjin

T5-5
Generating Ternary Stock Trading Signals Using Fuzzy Genetic Network Programming
Hosein Hamisheh Bahar, Mohammad H. Fazel Zarandi, and Akbar Esfahanipour

T6 — High Level Fuzzy Social Networks and Social Media

T6-1
Evaluating Coordination in Emergency Response Team by using Fuzzy logic through Social Network Analysis
Mahboueh Es-haghi and Susan Bastani
T6-2

A Fuzzy Classification Using a Type-2 Fuzzy Model in Social Networks
Mansoureh Naderipour, Susan Bastani, Mohammad Fazel Zarandi, and Burhan Turksen

T6-3

Crisp to Fuzzy Ontology Conversion in the Context of Social Networks: A New Approach
Hoda Safaeipour, M. H. Fazel Zarandi, and Susan Bastani

T6-4

A combined facility location and network design model with multi-type of capacitated links and backup facility and non-deterministic demand by fuzzy logic
Ali Akbar Sadatasl, Mohammad Hossein Fazel Zarandi, and Abolfazl Sadeghi

T6-5

Calibrating a Video Game Using Fuzzy Logic
Samir Abou-Samra